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ECONOMIC AND INDUSTRIAL AFFAIRS

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PLAN PREPARATIONS FOR 1982 DISCUSSED

Prague HOSPODARSKE NOVINY in Czech 15 May 81 pp 1, 4

[Article by Eng Josef Velek and Eng Milos Cepek, State Planning Commission: "Conversion of Plans and Budgets to Wholesale Prices"]

> [Text] A basic price-setting measure contained in the Set of Measures for the Improvement of the System of Planned Management of the National Economy is the implementation of an adjustment of wholesale prices which, in accord with Resolution No 71/1979 of the CSSR Government Presidium, is being carried out in stages during the early years of the Seventh Five-Year Plan. This adjustment involves wholesale price changes of all fuel and energy resources, some raw materials and basic supplies, railroad tariffs and products whose prices were markedly affected by changes in the starting price of raw materials and supplies.

The first stage of wholesale price changes effective 1 January 1981 has already been implemented. It involved primarily fuel and energy resources, selected basic raw materials, such as, iron ore, crude oil, ammonia, in addition to products made from crude oil, such as, synthetic fibers, intermediate goods for their manufacture and related textile and clothing products. The price changes were incorporated into the 1981 state implementation plan and state budget essentially by using data on deliveries listed in the centrally compiled 1981 materials balances. This adjustment of wholesale prices raised their value by roughly 36 billion Kcs with 29 billion Kcs for domestic products and 17 billion Kcs for imported raw materials and supplies.

The second stage ending 1 January 1982 will involve price changes of additional raw materials and supplies (zinc, tin, lead, nickel, aluminum, rubber etc.), of railroad freight and water transportation tariffs and especially of products whose prices were markedly affected by changes in the price of raw materials and supplies which went into effect both on 1 January 1981 and on 1 January 1982. These price changes will affect products of more than 230 production sectors. In some sectors, a comprehensive wholesale price change will be carried out (in iron metallurgy, building materials, food and building-construction industry sectors); in other production sectors only prices of selected groups of products will change where the effects of increased prices of fuels, energy, materials and intermediate goods cannot be compensated for by raising profitability beyond the set standard or by reducing costs.

Balancing Protocols

Price changes are expected to affect approximately 50 percent of all production and, in view of the considerable extent of the price increases, substantial changes will take place also in price relationships in the reproduction process which will have an impact on all sectors using production, including capital investment. Therefore, as in 1981, this process renders it necessary to ensure that the 1982 state implentation plan and state budget also reflect the effects of wholesale price changes which went into effect on 1 January 1982.

The preparation for and implementation of the effects of wholesale price changes and their incorporation in the 1982 state implementation plan and state budget thus constitutes an ambitious methodological undertaking and great work project also because the changed wholesale prices will serve as the basis for adjusting price standards and other tools used as material incentives.

The extent of price changes which will go into effect on 1 January 1982 renders the method of centralized balancing of price differences used in 1981 inapplicable; the price differences will have to be determined and balanced in the form of protocols in close relationship with supplier-customer ratios planned in 1982. These differences will be determined by pricing deliveries on the basis of wholesale prices in effect on 31 December 1981 and on 1 January 1982. The above points up the special urgency of: --formulating consistently the tasks planned for 1982 so they meet the terms of specific supplier-customer relationships and --abiding by the procedure governing negotiations between supplier and customer, and the resolution of potential conflicts at various management levels in accord with Decree No 48/1980 of the Code of the CSSR State Planning Commission and State Arbitration Commission.

Without observing proper discipline in this area, the planning procedure and determination of price differences, including their balancing, would be jeopardized. Decree No 48/1980 of the code sets down the procedure to be followed in resolving conflicts and imposes the obligation to resolve them without delay by mutual consent by determining the resources available and the legitimacy of specific needs without limiting the application of this procedure solely to tasks of the state plan but instructing the organs concerned to apply the procedure governing the resolution of conflicts in all cases where negotiation of supplier-customer relations is mandated. (Para 7, Art 2-4.)

The harmonogram of planned work operations is based on the premise that there will be enough time to negotiate supplier-customer relations between the time limit set for the specification of the guideline (end of April 1981) and the presentation of the draft plan at individual management levels, i.e., at the end of July for enterprises, the end of August for VHJ's [economic production units] and the end of September of this year for ministries. The draft plans will be submitted in prices converted to 1981 and then converted to 1982 price levels following the approval of the state implementation plan and state budget by the CSSR Government and after drawing balances in protocol form of the plan approved by the government in 1981 prices.

To ensure the application of the appropriate numerical determination method and procedure in converting the effects of wholesale price changes which went into effect on 1 January 1982 to plan indicators for the year 1982 the State Planning Commission, the Federal Price Setting Office, the Federal Ministry of Finance, the Czechoslovak State Bank and the Federal Ministry for Technical and Investment Development have published jointly methodological guidelines which are enclosed in this issue of HOSPODARSKE NOVINY.

According to the guidelines, the basic method used in determining price differences involves the assessment of the value of deliveries, raw materials, supplies and products planned for the year 1982 whose wholesale prices have changed on the basis of actual prices in effect on 31 December 1981 and on 1 January 1982. The price differences resulting from these two assessments by protocol of the values of the deliveries are approved both by supplier and customer organs. Negotiations designed to balance the price differences are always initiated by the supplier except in the case of import deliveries, where the customer initiates the negotiations.

The exception in balancing is the determination of price differences arising from changes in freight tariffs of rail and water transportation where the transportation agency (receivers of freight) calculate the results of the tariff changes independently and where potential differences between the figures arrives at by the transportation agent and its customers are resolved cooperatively by them, the Planning Commission, the Federal Ministry of Finance and the Federal Price Setting Office.

The determination of price differences and balancing negotiations are carried on as a matter of principle at two levels, middle mangement (as the basic level of management) and the central organs. To that end, middle management organs will make use of the documentation and data supplied by their organizations.

Specific Solutions

The guidelines permit: --using an alternative method based, for example, on the structure of deliveries taken from the 1981 plan, the 1980 reality, the average wholesale price or the price index in cases where for objective reasons the price differences cannot be expressed numerically by the balancing method where product prices are used to determine the value of specific deliveries; --balancing at all three management levels, i.e., at the enterprise level, that of VHJ and of central organs in cases of strictly circumscribed types of deliveries (applicable to building construction and deliveries by the VHJ Iron Metallurgy and the VHJ Kovohute). Special forms are required for balancing at the level of enterprises in the building-construction sector because of the specific nature of this branch. Balancing by enterprises does not absolve the VHJ or central organs from the obligation to carry out balancing also at their respective levels; --middle management to entrust its enterprise or the central organs will advise their respective partners of their decision in time to safeguard the proper balancing procedure.

The supplier failing to initiate negotiations concerning balancing of price differences should be asked by the customer to do so. If he fails to meet his obligation, then information supplied by the customer will be used for balancing.

Upon completion of the balancing procedure by middle management, the balancing protocols and other documents are passed on by these organs to their respective central organs to their respective central organs to enable them to carry out balancing at their level. Central organs then pass the completed protocol with other balancing protocols to planning commissions and finance ministries.

An important stipulation in the guidelines concerns the resolution of potential conflicts between suppliers and customers. Conflicts arising during negotiations of price differences at the middle management level are resolved with finality by the respective superior central organ.

The rare potential conflicts arising during negotiations of price differences at the level of central organs managing the national economy between--the organs of the republics are resolved by the planning commissions of the republics, --the federal organs are resolved by the State Planning Commission, --the organs of the republics and federal organs are resolved by the planning commissions of the republics jointly with the State Planning Commission.

Therefore, central organs will pass on protocols to planning commissions and finance ministries with all conflicts resolved.

Work Harmonogram

Mastering the procedure of numerical determination of price differences as the basis for recalculating the 1982 state implementation plan and state budget is among other things predicated on the harmonogram of set deadlines and the scope of operations in their interrelated sequence.

The starting point is the specification of the guideline for the preparation of the state implementation plan which must reach the enterprises by 29 May 1981. Gradually, central organs must inform organs of the economic sector by 15 June 1981 about pricing documentation and ensure publication of new applicable price lists or rosters of new wholesale prices or indices. By the end of May, the Federal Price-Setting Office will publish in price bulletins a list of manufacturing branches which are subject to an adjustment of wholesale prices effective 1 January 1982 especially to keep customers fully informed.

By 24 August 1981, middle management organs will submit to central organs the 1982 draft plan reflecting 1981 prices with the request to discuss the draft plan with them, whereupon the middle management organs will undertake the determination of price differences which must be mutually agreed upon by 30 October 1981.

The central organs, which will process the 1982 draft plan reflecting 1981 prices received in the form of protocols from middle management by 24 September, will immediately initiate the determination of price differences at their level or make preparations enabling them to make necessary corrections of the balancing results performed by middle management on the basis of the 1982 plan reflecting 1981 prices approved by the CSSR Government by 10 December 1981, complete by 22 December 1981 the balancing of price differences at their level and pass on the documentation to planning commissions and finance ministries.

In view of the fact that the price difference protocols and the other balancing documents shed light only on the impact of price differences on the principal plan indicators while the extent of indicators which will have to be reevaluated is much broader, central organs will also hand over, with the balancing documents, the 1982 plan with selected indicators expressed in 1981 and 1982 prices. The State Planning Commission and the Federal Ministry of Finance will determine the indicators to be selected by 30 June 1981.

State Planning Commissions and the Federal Ministry of Finance in cooperation with other central organs will ensure the conversion of the 1982 state implementation plan and state budget to prices effective as of 1 January 1982 on the basis of these documents. The resulting coefficients will serve for the conversion of the Seventh Five-Year Plan from the 1981 to the 1982 price level.

It is obvious that the second stage of wholesale price changes will constitute an ambitious project which must primarily result in the determination of well-balanced price differences both of resources and their application to prevent the appearance of a disequilibrium of value relations in the 1982 state implementation plan and state budget as a result of the new prices. A satisfactory result can be achieved only by a very responsible and disciplined approach to this task by all economic management organizations and organs involved. The task can be mastered only by close cooperation of all planning units of individual organizations and organs, such as, for example, technical, material, supply, sales, capital construction, financial, price-setting and other departments.

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CSO: 2400/231

BUDGET, 1982 PLAN TO BE BASED ON NEW WHOLESALE PRICING

Prague HOSPODARSKE NOVINY in Czech 15 May 81 p 5

[Article by Eng Vaclav Vertelar, Deputy Chairman of the State Planning Commission]

[Text] The 16th CPCZ Congress has adopted a resolution calling for the completion of the Seventh Five-Year Plan during 1981 and its implementation as a political task of highest priority.

The specific material content of this task is contained in the Principal Guidelines for Economic and Social Development of the CSSR for the Years 1981 to 1985. It is a sober and realistic program to assure attainment of a secure life and continued development of the entire society. At the same time, it is an enormously ambitious program calling for truly new approaches to planning, management and high quality of all work.

Quality Must be Improved

Notwithstanding the prevailing considerably more difficult external and internal conditions, the key objective is to maintain and raise the existing high standard of living of the population to render life more secure as the result of achievements to be attained by developing the national economy.

There is no easy way of attaining this goal and neither the resolution passed by the 16th CPCZ Congress nor the entire proceeding make any promises in this regard. On the contrary, it calls very urgently and openly for turning a new leaf by raising efficiency of production, quality of work and economy in all sectors of society. This strategic line for developing the economy has already been articulated at the 14th and 15th CPCZ Congresses. Today the attainment of this objective has greatly gained in urgency.

This is why the principal goals which the Seventh Five-Year Plan is expected to meet have been set so high. At issue is not a partial correction of old mental processes but the fulfillment of planned specific tasks to achieve rapid and consistent transition to the intensive development of the economy and dispel the old ingrained notion that dynamic development can be achieved only by greatly increasing the input of energy, fuels and raw materials, by vast capital investment and a high volume of imports primarily from nonsocialist countries (moreover, without corresponding exports).

The Seventh Five-Year Plan must ensure growth of the national product with a minimum of material inputs and the increase exceeding the growth of production requirements without the need to raise the volume of capital investments in the course of the five-year plan, but, on the contrary, by reducing their proportion of the national product. The structure and scope of new capital investments must be markedly changed to achieve their fast return through modernization, the number of starts of new projects must be reduced up to 40-50 percent compared with the preceding five-year plan.

How this is to be achieved is succinctly stated in the Report on Party Activities and Developments in Society since the 15th CPCZ Congress and on Other Party Tasks presented at the 16th CPCZ Congress by the general secretary of the CPCZ Central Committee, Gustav Husak: "The goals we set ourselves cannot reflect only our expectations. We cannot but start from what we have by using it as efficiently and economically as possible. We must apply the means we possess primarily to resolve our economic problems and concentrate on matters which contribute most to human development and society."

The implementation of these goals cannot be postponed and there is no time for long preparations. In a few weeks, the first 6 months of the first year of the Seventh Five-Year Plan will come to an end, thus giving us an opportunity to assess how resolutely we have embarked on the task, where the shortcomings are, where the pace is appropriate or where it needs to be accelerated.

In recent days, the federal and national governments have approved the guidelines for preparing the 1982 plan, the second year of the Seventh Five-Year Plan. At the same time, work is proceeding intensively on completing the drafting of the five-year plan. This is for all management levels--from enterprises to central organs--a period of very complicated, demanding but primarily responsible work. Moreover, a time in which "routine stereotypes" encumbered with all the planning mistakes of past years (the creation of a soft starting base, ignoring hidden reserves, making unreasonable demands, etc.) must be abandoned. Is it really that bad everywhere? Only the fulfillment of the plan this year and the quality of the 1982 draft plans and the entire five-year plan will give the answer.

We Must Not Be Satisfied with Our Results

The development of the national economy and the implementation of the plan since the start of the year cannot be called satisfactory. Admittedly, the 1981 plan is already based on the ambitious indicators of the Seventh Five-Year Plan and, therefore, fulfilling it is more difficult than in the past. In accord with the new concept, the Seventh Five-Year Plan starts by increasing demands gradually. Therefore, the goals set for the first year are very realistic with implementation progress slower than in preceding years to prevent the development of excessive imbalances in the economy. This is not a self-serving departure, a respite. The objective is using this period to effect structural changes and accelerate production innovation, make preparations for the modernization of the production base, reevaluate old concepts underlying extensive production methods, capital investment and technical policy as a prerequisite for the implementation of the principles contained in the Set of Measures for Improving the System of Planned Management of the National Economy.

Evaluating the progress achieved in the economy and plan fulfillment is complicated by the fact that, unlike in the same period of last year, the time till the end of April is shorter by 2 working days, which naturally distorts to a certain extent the results achieved especially in the first months of the year. Therefore, to assess the trend correctly, median results achieved each working day must be compared.

Industrial production increased till the end of April over the same period of last year by 1.5 percent (in the CSR by 0.9 percent, in the SSR by 3 percent). The plan stipulates a 2.7 percent increase for the year. Median daily production in the same period increased 4 percent. This indicates that the annual production goal will be fulfilled (the number of working days will even out in the fourth quarter). But the fact that the growth rate of mean daily industrial production gradually decreased from 103.4 percent in January to 101.9 percent in April is worrisome because there is no special reason for it. Power supply is continuous, perhaps too reliable, which detracts--as a number of observations indicate--from the urgency of saving energy and from the rational allocation of power. Power consumption is increasing faster than production, power consumption discipline is becoming lax also in the nonproduction sphere. Importing goods required by the production sector presents a number of problems (which will continue to exist as long as enterprises find it easiest to import needed raw materials and supplemental products from none other than capitalist countries) but on the whole imports are being effected even before they are needed.

Tasks of the distribution plan are not being fulfilled satisfactorily with respect to production allocations. For example, in the fourth quarter no more than half the enterprises managed to fulfill all the indicators which must be met to fulfill the plan (of the enterprises which were assigned such indicators).

The engineering industry, primarily heavy engineering, is making only slow progress and export tasks especially are not being fulfilled satisfactorily. According to preliminary results, engineering production increased till the end of April by 2.9 percent (the annual plan stipulates 5.9 percent), heavy engineering by 1.6 percent (5.4 percent), general engineering by 2.8 percent (6.1 percent) and electrical engineering by 5.2 percent (5.8 percent).

Capital construction and building construction continue to be plagued by problems from past years. In the period till the end of April, the volume of construction work completed by the enterprises' own labor dropped 2.4 percent compared to last year's volume (while the plan calls for a 2.8 percent annual increase), with the shortfall occurring primarily in capital construction. Shortcomings in bringing new capacities into production have not been overcome. In 1981, 100 construction projects designated as mandatory in the state plan are supposed to be completed with 5 going into operation in the first and 56 in the last quarter. In reality, only two capacities came into production in the first quarter. In addition, of 14 projects which were supposed to be completed according to plan in 1979 and 1980, only a single one came into operation this year. So far housing construction is also proceeding very unsatisfactorily.

A number of qualitative indicators of planned tasks remained unfulfilled in the first quarter of this year. Labor efficiency, especially in building construction, is rising slower than the plan calls for. The ratio of labor-productivity increase and median wages is developing unsatisfactorily. The planned level of profit was not attained and the utilization index of supplies declined.

So far conditions for fulfilling the objectives of the state plan in the first year of the Seventh Five-Year Plan are not favorable, as this brief survey of current trends of economic development demonstrates. Therefore, in the spirit of the resolutions of the 16th CPCZ Congress the effort must be intensified to fulfill this year's tasks, if for no other reason than to create a favorable starting base for 1982.

The Principal Tasks for Next Year

In accord with the resolutions of the 16th CPCZ Congress, the Guideline for the Preparation of the State Implementation Plan for 1982 aims at intensifying and attaining more efficient economic development with priority assigned to the solution of foreign economic relations.

The plan is designed to accelerate the rate of growth of the national product and exceed the growth achieved in 1981, maintain capital construction volume at the 1981 level and improve the quality of the existing standard of living by adapting the structure of deliveries for the domestic market to popular demand and improving the assortment of goods.

The respective basic ratios called for in the guidelines for the preparation of the 1982 plan are summarized in the table.

The magnitude of the growth rate of the national product in 1982 is affected primarily by industrial production which in turn depends largely on the attainment of considerable savings and improved utilization of fuels, energy, raw materials and supplies, resources which are rather limited, primarily those which have to be imported.

A reduction in the consumption of energy and materials will be achieved primarily by:
—changing, as in 1981, the structure of industrial production compared with the Sixth Five-Year Plan by slowing down considerably the growth rate of production branches requiring a high input of energy and materials. For example, the production volume in the fuel and energy sector in 1982 is to remain essentially at the 1981 level; in the Sixth Five-Year Plan the mean annual growth rate was 3.1 percent. In 1981 and 1982, metallurgy is expected to have an annual growth rate of roughly 1 percent while the annual growth rate recorded in the Sixth Five-Year Plan was 2.6 percent. Similarly, the chemical industry's annual growth rate is to be reduced from 5.2 percent in the Sixth Five-Year Plan to 2.4 percent. A similar trend will have to be reflected in structural changes within individual industrial sectors. In contrast, in the structure of industrial production the proportion of engineering production is being raised to an annual growth rate of 5.5 percent with electrical engineering exhibiting the especially fast growth rate of 7.3 percent;

--achieving maximum savings in the consumption of key raw materials, supplies, solid fuels, energy and liquid fuels by setting mandatory, progressively stricter limits. Strictest limits will be set to the consumption of crude-oil products. For example, gasoline consumption by socialist organizations is to be reduced almost 5 percent, that of light heating oils 15 percent.

Savings in fuels, energy and metals will be achieved by rationalization measures according to state target programs. Rationalization of metal consumption is expected to result in relative savings by reducing the specific consumption of metals in key sectors (in the engineering sector by 4-5 percent), improved utilization of domestic resources especially by intensified collection of scrap metal. Economy in managing the other important raw materials and supplies will have to be specified and implemented by intensified recycling of better quality wooden and paper packaging materials, glass and generally of all so-called secondary raw materials and supplies;

--implementing tasks contained in the plan for the development of science and technology and the application of tools of the financial plan.

The guideline for 1982 pays special attention to capital construction. The volume of capital construction and the extent of new construction project starts remains roughly at the level of the 1981 plan. But indications are that this is solely the first step in tackling the problems besetting capital construction. As a matter of principle, all sectors must reevaluate the existing concepts governing capital construction and its implementation. The current number of uncompleted projects is excessive, construction times are getting longer. By the end of 1980 the number of uncompleted projects exceeded 29,000. Of these, roughly 300 had a budget exceeding Kcs 30 billion and a construction period of more than 10 years. There are projects on which only token progress is made each year. In 1980, no progress whatsoever was made on 199 construction projects with a budget of Kcs 4.4 billion. In spite of these intolerable conditions the pressure on starting new projects persists. Highly responsible proposals need to be drawn up to advance solutions specifying what projects are to be either completely abandoned or discontinued for a time to make possible a decisive construction speedup of key projects which are vital to the national economy.

Preparation of High-Quality Plans

The procedure for preparing the 1982 plan assumes that at a time when VHJ's and enterprises will be working on the 1982 draft plan, central organizations will be completing work on the Seventh Five-Year Plan. Organizational measures of the Guideline for the Preparation of the 1982 Draft Implementation Plan stipulate that the guideline is fulfilling functions which otherwise the five-year plan is expected to fulfill till the time of its approval. The assumption is that when the 1982 plan is approved the Seventh Five-Year Plan will also be approved.

The tasks of the guidelines are expected to be specified for individual VHJ's and enterprises by the end of May. Economic organizations are expected to complete draft plans by 24 July middle management organs by 24 August and central organs by 24 September. This procedure leaves enough time for discussing and ensuring the viability of the plan and for using counterproposal planning as the basic form of worker participation in management. All this must be carried out in accord with principles approved by the CSSR Government and the Central Trade Union Council on the qualitative aspects of development with the limited help of means allocated by the guideline to ensure more efficient utilization, especially of material resources and labor.

Therefore, the immediate tasks before us are of high priority and their implementation is expected to contribute importantly to the fulfillment of the resolutions of the 16th CPCZ Congress.

Basic Increases Postulated by the 1982 Plan Guideline Draft
(mean annual increments in percent)

	Sixth Five-Year Plan	Seventh Five-Year Plan	$\frac{1980}{1979}$	$\frac{1981}{1980}$	$\frac{1982}{1981}$
Social product	3.7	2.7	3.2	2.8	2.8
National income	4.0	3.0	3.3	2.8	3.0
Gross industrial product	4.5	3.5	3.2	2.7	3.3
Agriculture	1.8	1.9	6.0	2.6	1.6
Output volume of building construction organizations	4.5	2.4	1.0	3.8	2.0

Explanations: Data pertaining to the Seventh Five-Year Plan are in accord with the principal stipulations of the government directives on the preparation of the Seventh Five-Year Plan. Year 1980 preliminary data, year 1981 plan.

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JANUARY-MAY 1981 ECONOMIC RESULTS SUMMARIZED

Prague HOSPODARSKE NOVINY in Czech 26 Jun 81 p 2

[Summary by the Federal Statistical Office: "May 1981"]

[Text] The following results were achieved in the main areas of the national economy in May this year (the number of working days was the same as in May 1980):

--in industry, production volume was greater than in May 1980 and deliveries in all main directions of sales increased, but enterprise plans, were not fulfilled in industrial production volume, in deliveries to domestic trade and for exports to the nonsocialist countries. On the other hand, the plan of deliveries for export to the socialist countries was surpassed. According to preliminary results, the targets set for adjusted outputs were met;

--in agriculture, the course of field work was smooth and corresponded to the several-year average. In animal production, the plan targets were surpassed in all basic animal products;

--in the building industry, the volume of construction work carried out with own labor did not reach the level of May 1980. According to preliminary results, enterprise plans were not fulfilled either in production volume or adjusted outputs;

--in public freight transportation, the plan targets were surpassed in railroad transportation, CSAD [Czechoslovak State Automobile Transportation] as well as in river transportation, most notably in CSAD. The volume of transported goods was greater than in May 1980 in river transportation and CSAD, while it was below the May 1980 level in railroad transportation;

--in foreign trade, the turnover slowed down both in relation to the socialist countries and particularly the nonsocialist countries;

--in domestic trade, retail trade turnover in all main trade systems was below the May 1980 level and its plan was not fulfilled.

In centrally planned industries, the industrial production volume amounted to Kcs 50.9 billion in May, which was 1.0 percent more than in May 1980. The enterprises of centrally planned industries fulfilled the enterprise plans 99.8 percent. There was particularly low fulfillment of production plans by the enterprises controlled by the Federal Ministry of Fuels and Energy, engineering enterprises and enterprises engaged in production of building materials. The plan of adjusted outputs was fulfilled by industry 100 percent.

In comparison with the same period of 1980, industrial production volume increased 1.4 percent during the January-May period, while average daily production increased 3.4 percent, that is, at the same rate as during the January-April period this year. Enterprise production plans were fulfilled 100.2 percent from the beginning of the year to the end of May. However, 255 industrial enterprises that is 30.1 percent of the total number failed to meet the production targets during the first 5 months of this year.

The plan of adjusted outputs was fulfilled 100.7 percent from the beginning of the year to the end of May.

As to the sales of industrial products (at wholesale prices), the deliveries for export to the socialist countries increased 1.2 percent, shipments for export to the nonsocialists countries increased 1.6 percent, while deliveries to domestic trade decreased 0.6 percent during the first 5 months of 1981 in comparison with the same period of 1980. Sales for consumption and operations of the production sector increased 3.0 percent during the January-May period.

Economic plans were surpassed in all main directions of sales from the beginning of the year to the end of May. However, the planned deliveries to domestic trade were not fulfilled by 15.5 percent of enterprises, the deliveries for export to the socialist countries by 15.9 percent of enterprises and for export to the nonsocialist countries by almost 31 percent of enterprises involved. More than 40 percent of enterprises for which this indicator is specified failed to meet the targets for productive consumption and operations during the first 5 months of this year.

In agriculture, the thinning of sugar beet was completed on 99.2 percent of planned areas by 9 June 1981. Perennial fodders grown on arable land were harvested on more than 60 percent of planned areas, and hay from 34.5 percent of planned areas covered permanently with grass. In animal production, the purchase schedule was complied with 102.5 percent in regard to slaughter animals, 100.4 percent in regard to slaughter poultry, 102.9 percent in milk and 104.8 percent in eggs. In comparison with the same period last year, the purchases of slaughter animals including poultry increased more than 26,800 tons, the purchase of milk declined 34 million liters and the purchase of eggs increased 38.2 million during the January-May period.

In the building industry, the low fulfillment of enterprise plans continued in May; construction enterprises fulfilled monthly enterprise plans of construction work performed with their own labor 96.7 percent, and the enterprise plans of adjusted outputs 98.3 percent. In comparison with May 1980, the construction work volume declined 2.2 percent and amounted to Kcs 7.2 billion. From the beginning of the year till the end of May, the building enterprises performed construction work with their own labor in the value of Kcs 30.9 billion which was 3.6 percent less than detailed in the enterprise plans for this period, and 2.6 percent less than in the same period last year. During the January-May period, the planned production targets were not met by 179 building enterprises or 77.5 percent of the total number. In comparison with the same period last year, average daily production in the building sector decreased 0.4 percent during the January-April period and 0.7 percent during the January-May period. Enterprise plans of adjusted outputs were fulfilled 97.9 percent during the first 5 months of this year.

In housing construction from the beginning of the year to the end of May, contracting building enterprises completed 8,650 apartments or 12.5 percent of the annual state plan.

Public freight transportation carried 56.5 million tons of goods in May and the transportation targets were met 102.5 percent. In comparison with May 1980, the volume of transported goods was 3.0 percent higher. From the beginning of the year to the end of May, freight public transportation carried 263.5 million tons of goods or 40.6 percent of the annual state plan target. The planned transportation tasks were generally fulfilled 101.6 percent, in railroad transportation 99.5 percent, river transportation 97.3 percent and CSAD 103.5 percent during the first 5 months of this year. The total volume of goods transported during 5 months was 3.5 percent more than during the same period of last year.

In foreign trade at current prices, turnover slowed down in May. A more significant slowdown was registered in relation to the nonsocialist countries than in relation to the socialist countries. The rates of increase in total imports and exports were higher than anticipated by the foreign trade plan for the year. The annual state plan was fulfilled as follows by the end of May: 38.9 percent of exports to the socialist countries; 36.1 percent of exports to the nonsocialist countries; 38.1 percent of imports from the socialist countries; 38.8 percent of imports from the nonsocialist countries.

In domestic trade, merchandise in the total value of Kcs 17.3 billion at current prices was sold in May. Retail trade turnover in the main trade systems was 1.0 percent below the level of May 1980. A more rapid increase was registered in retail trade turnover in public catering (102.8) and trade sector (98.4).

During the January-May period, the main trade systems sold to the population merchandise in the total value of Kcs 83.2 billion which was approximately equal to the value reached last year. Enterprise plans for increased retail sales were fulfilled 98.9 percent during the first 5 months of this year. The rate specified by the annual state plan for all trade systems (103.0) was surpassed by the retail turnover in Klenoty [Gems] (106.2) and Obchod Obuvi [Shoe Trade] (103.9). On the other hand, there was a small increase in the retail turnover of Obchod Nabytkem [Furniture Trade]--82.6, while enterprise plans were fulfilled 88.7 percent.

Personal incomes rose 2.6 percent compared to the same period last year, January-May 1980, that is, Kcs 3.7 billion. Wage incomes rose 2.3 percent.

Savings deposits were Kcs 161.4 billion as of 15 May 1981.

Money supply was Kcs 45.1 billion as of 31 May 1981.

[Continued on next page]

Basic Indicators of National Economy's Development in May 1981.
Increments Over Comparable 1980 Period (in percent)

	May	January	Annual plan[1]
Deliveries by Centrally Administered Industry for:			
Investments at wholesale prices		-1.1	3.5
Domestic market, at wholesale prices		-0.6	1.3
at retail prices		-1.2	2.3
Export to socialist countries at wholesale prices		1.2	1.4
at FOB prices		1.2	3.5
Export to nonsocialist countries at wholesale prices		1.6	-0.2
at FOB prices		2.4	-1.0
Other sales for production consumption and operations at wholesale prices		3.0	
Volume of industrial production	1.0	1.4	2.8[2]
Average employment	0.6	0.6	0.5
Labor productivity based on industrial production	0.4	0.8	2.2
Construction:			
Construction work performed with own labor	-2.2	-2.6	2.8
Average employment	-0.2	-0.4	0.0
Labor productivity based on construction work	-2.0	-2.3	2.8
Housing units delivered by contracting enterprises	-21.9	-41.7	-15.9
Procurement:			
Slaughter animals (including poultry)	0.7	3.7	-1.4[2]
Milk	-0.3	-1.6	0.7[2]
Eggs	2.3	3.5	-0.6[2]
Retail Turnover:			
Of main trade systems	-1.0	-0.1	3.0[2,3]
Foreign Trade:[4]			
Export to socialist countries	-6.6	8.0	1.7[2]
Export to nonsocialist countries	-21.3	6.2	2.9[2]
Import from socialist countries	0.4	9.2	1.1[2]
Import from nonsocialist countries	-16.1	2.1	2.2[2]
Personal Incomes:[6]	3.7	2.6	3.6[5]
Of which: Wage incomes[6]	4.1	2.5	3.1
Actual monetary outlays[6]	0.5	0.4	3.3[5]

FOOTNOTES

1. Growth compared to forecasts in 1980.

2. Growth compared to actual results in 1980.

3. All trade systems.

4. Actual results data cover the overall implementation, state plan (contrary to overall implementation) does not include unplanned actions within the framework of cooperation, unplanned reexport trade actions, exchanges, conditional trade, etc.

5. Includes interest estimates on loans.

6. Data have been calculated on the basis of the CBCS (Czechoslovak State Bank) budget plan.

10501
CSO: 4200/258

EXCESSIVE LEVERAGING BY ENTERPRISES CRITICIZED

Prague HOSPODARSKE NOVINY in Slovak 8 May 81 p 5

[Article by Eng Stefan Zubak, Czechoslovak State Bank, headquarters for the SSR, Bratislava: "Enterprise Solvency"]

[Text] The financial situation of enterprises cannot be judged on the basis of one or several indicators alone. Its evaluation requires analyses in depth of financial management, of the structure of assets and liabilities, their interrelationships and so on. In addition, supplementary indicators must be used for this purpose. Among them we may also include the trend in enterprise solvency as recorded by the Czechoslovak State Bank [SBCS]. We must also take into account the trend in credit assistance by the bank designed to overcome the temporary lack of funds.

If we judge the solvency of enterprises in the SSR during 1980 according to the amount of payments stopped by the bank due to the lack of funds or because the credits were not repaid on time, we reach the conclusion that their solvency slightly improved. The outstanding debts were reduced from Kcs 2.1 billion to Kcs 1.8 billion. This was achieved, however, through extended credit assistance by the SBCS designed to overcome the temporary lack of funds.

The amount of credit assistance, also including emergency credits, increased from Kcs 2.6 billion to Kcs 4.1 billion during 1981. The bank rendered this assistance in order to prevent financial difficulties from spreading like a chain reaction from one enterprise to another throughout the entire national economy. The bank linked this credit assistance to the measures designed to eliminate the existing shortcomings and thus to restore enterprise solvency by helping them to attain an overall financial balance.

Although the insolvency of enterprises in the SSR declined last year, it was still high and by the end of 1980 reached the second highest point during the entire Sixth Five-Year Plan. It registered considerable fluctuations in the course of the year, for example, it amounted to Kcs 3.4 billion on 30 September 1980.

The discrepancy between revenues and expenditures existed primarily in those enterprises which failed to meet production targets or fulfilled them unevenly, exercised ineffective inventory control, were sending out their bills at irregular intervals, did not reach the planned profit and so on. As a result, quite a few enterprises did not meet the criteria for granting credits and the bank therefore refused to grant them credits even though these enterprises ran into financial difficulties. This is particularly true of some enterprises in the general engineering sector, construction industry, but also of some enterprises of the SSR Ministry of Industry and some JRD [unified agricultural cooperatives].

The development during the 1975-1980 period makes it unmistakable clear that the solvency of enterprises in the SSR gradually deteriorated particularly in the last 3 years. The increasing credit assistance by the bank points to the lack of enterprise own funds (Table 1).

Table 1

Trend in enterprise solvency and credit assistance by SBCS (in billion Kcs)

	31 December 1975	31 December 1978	31 December 1980
Stopped payments and credits not repaid on time	0.5	1.4	1.8
Credits for overcoming lack of funds	1.3	1.8	4.1
Total	1.8	3.2	5.9

The growth rates of financial difficulties are high (taking 1975 as the basis, they increased 161.1 percent in 1979 and 227.8 percent in 1980). Since they arose from enterprise operations, the causes of their increase must be thoroughly analyzed.

The development furthermore reveals that enterprise financial difficulties are permanently concentrated in the area of operations, although many problems also exist in the investment sphere. The relationships between these two areas in recent years are shown in Table 2.

Table 2

Enterprise obligations not honored on time including unrepaid credits according to SBCS records (in billion Kcs)

Sphere	31 December 1975	31 December 1978	31 December 1980
Operations	0.3	1.0	1.4
Investments	0.2	0.4	0.4
Total	0.5	1.4	1.8

Although some of the investment problems are naturally reflected in the area of operations, it is worth investigating why the shortcomings in the investment area are not adequately reflected in the financial difficulties of this sphere.

It is evident also that enterprises in the SSR permanently encounter greater financial difficulties than enterprises in the CSR. It inevitably follows from this fact that every level of management must pay increased attention to the solvency of enterprises in the SSR because this is a chronic problem which causes a number of difficulties. It is all the more urgent since the insolvency of enterprises in the SSR was not reduced, but in fact increased by Kcs 1.6 billion in the first 2 months of 1981 and amounted to Kcs 3.4 billion. Of this amount, the organizations managed by the federal agencies accounted for Kcs 1.5 billion and the organizations supervised by the SSR agencies for Kcs 1.9 billion. While the credit assistance slightly declined, enterprise insolvency was Kcs 1.1 billion higher on 28 February 1981 than a year earlier. Although financial difficulties are encountered in most sectors, the most serious continue to exist in the general engineering sector, the construction industry and enterprises of the SSR Ministry of Industry. However, considerable financial difficulties are also being encountered by some enterprises in the metallurgical, heavy engineering and cooperative sectors.

The increasing financial difficulties this year are closely related to the unsatisfactory start in the fulfillment of state plan tasks which is, of course, contrary to the measures for improving the planned management system of the national economy. The key to the improving of enterprise solvency is thus their dynamic, even and effective development.

10501
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POLAND

FODDER PRODUCTION, PREPARATION, UTILIZATION DISCUSSED

Increasing Production

Warsaw PRZEGLAD HODOWLANY in Polish 1-15 Apr 81 pp 3-6

[Article by Prof Dr Andrzej Slabonski, AR (Agricultural Academy) in Szczecin]

[Text] For the purposes of solving the grain-fodder problem and increasing the production of meat and sugar, we must expand the cultivation of spring barley fodder to 5 million hectares, of sugar beets and fodder beets to 1.5 million hectares as well as of grasses, clover and alfalfa, and we must decrease the cultivation of rye fodder, potatoes and corn, particularly seed corn.

The primary cause of the lack of a solution to the grain-fodder problem in Poland is the reduced structure of grain sowings and the simultaneous basing of their production primarily on rye, which is the most widely cultivated of all crops and of which 80 percent is designated for fodder. In view of its chemical composition, rye is the least suitable fodder for cattle and other animals, since it has little protein and an excess of many toxic substances derivative resorcins which cause the poor utilization of protein and diseases, together with the stunting of the growth of young animals. Derivative resorcins are found in brans and not in flour. When bread is baked at a high temperature it loses its toxic properties, thus making rye bread healthful and tasty.

Rye is unproductive, yields an unpredictable harvest and is the most deceptive of all grains because of the basing of rye production primarily on Dankowski Zloty, a fruitful variety under favorable conditions, but susceptible to diseases: fusarium wilt, root rot, spike diseases and stalk brittleness. From year to year, rye harvests are subject to great fluctuation, since the crop is damaged during severe winter snows by fusarium wilt and other diseases, causing a disastrously poor harvest of rye, e.g., in 1970 the average rye harvest was 1.6 tons per hectare, in 1979--1.8 tons per hectare and in 1978--2.5 tons per hectare.

There was also a poor wheat harvest in 1979 due to a monoculture, basing wheat production on Grana, a variety of average hardiness, susceptible to fusarium wilt, rust, powdery mildew, septoria and especially stalk brittleness. Grana contaminated the fertile soil with stalk brittleness and other crop-rotation diseases. In this regard, wheat does not yield satisfactory harvests, which are subject to great fluctuation from year to year due to the removal from a locale of hardy, varieties which are resistant to disease and the introduction of varieties which are of average or below-average hardiness and are susceptible to disease.

Time after time, it has been possible to prevent disastrously poor harvests of rye and potatoes in our farm production by substituting and expanding the cultivation of spring barley, high-yielding and usually dependable beet crops, as well as grasses and grass mixtures with legumes. For years I have recommended the above changes in our sowing structure in many publications, including this publication (May 1980).

Potatoes are tricky to grow because they are plagued with many diseases and pests.

For this reason, in years during which atmospheric conditions are unfavorable, i.e., during a time of drought or excessive rainfall, raising potatoes is not successful. The battle against potato beetles makes potato production labor-intensive and unhygienic, and it is a shame to pollute the environment with chemical substances which are injurious to man and animals just to grow potatoes for fodder. Limiting the cultivation of potatoes for fodder reduces the spread of the potato beetle and the battle against it becomes less difficult.

Poly-Past beets yield considerably more fodder even in fifth-class lightest soils than do potatoes. This is why potatoes should be raised only for eating purposes, for industrial use and for export, with peels and small bulbs being used for fodder. Fattening swine on potatoes is labor-intensive and unprofitable. Barley and beets are more hygienic and cheaper fodder, since, unlike potatoes, they do not have to be cooked.

Corn is not a good crop for our climate; seed corn planted in cold years does not mature. Moreover, cultivating corn contaminates the environment, reduces soil fertility and causes all subsequent plantings to result in a poor yield, especially wheat and barley.

The grain shortage is linked with our constantly growing need for fodder for animal production, the significance of which in our food economy grows every year. This is also the reason for our increased need for fodder grain. The production of grain which can be fully mechanized is cheap. By comparison with root crops, grain does not require a great work input for cultivation. Grains are considered throughout the world to be the most profitable crops, cheap and easy to produce, to store and to use for fodder. This is why the percentage of grain used for fodder is constantly growing. Currently 70 percent of the total grain harvest in Poland is used for fodder purposes.

Thus the incomprehensibility of the tendency in our agriculture to reduce the area under the cultivation of grain to 7,114,000 hectares in 1978 and to 6,981,300 million hectares in 1979, with an increase in the area per head of cattle under cultivation of root crops primarily used to feed. Meanwhile, in the FRG the share of grains in the sowing structure increased from 52 percent to 72 percent, and the share of root crops declined. The cultivation of aftercrops and cover crops has increased, as has the stock of cattle, to approximately 100 head per 100 hectares of arable land, while the area of land under cultivation for the purpose of feeding one cow has been reduced.

The program for the development of grain production from 1976 through 1980 was approved by Decision No 85/75 of the Government Presidium, dated 10 August 1975. It established a reduction in the area to be used to raise rye to approximately 2.48 million hectares in 1980, with a concurrent increase in the area to be used to raise barley to 2 million hectares, and an increase in wheat to 2.4 million hectares. Meanwhile, the area under rye cultivation increased to 3,115,700 hectares in 1977, and to 3.03 million in 1978, whereas the area under cultivation of barley declined to 1,235,000 hectares in 1977 and to 1,202,000 hectares in 1978; the area under the cultivation of wheat did not change significantly during this period.

In 1979, the area under rye cultivation declined to 2,868,000 hectares, while wheat cultivation declined to 1,549,000 hectares due to the plowing under of those crops which were lost during the severe winter. At the same time, the area under cultivation of barley increased to 1.47 million hectares, primarily as a result of the sifting out of winter grains that had been plowed under.

A major obstacle for us in our expansion of barley cultivation and in producing increased yields on light soils is the small number, and sometimes the total lack in a particular area, of varieties suitable for soils which are poor or very poor for raising rye. Experiments conducted on varieties of spring barley are done on fertile and average soils, and to a lesser extent on soils which are poor or very poor for raising rye. Currently we have only five localized varieties, for the most part foreign, which have extensive soil and water requirements: Trumpf, Aramir, Menuet. Only Diva is suitable for light acid soils.

The Polish Gryf and Polon varieties of barley are superior to foreign varieties in resistance to drought and in their better adaptation to poor meteorological conditions and light acid soils. They yield more than the other varieties in years during which there are unfavorable meteorological conditions. In 1976, experiments at COBORU [Main Center for Research on Crop Varieties] Cultivation, Gryf and Polon ranked highest and resulted in greater yields than the localized foreign varieties Aramir, Trumpf, Elgina and Berac. Despite this, the share of the following varieties in regionalization was dynamically increased: Trumpf--28 percent, Aramir--31 percent and Diva--30 percent; Gryf was eliminated and Polon was limited to 3 percent.

Gryf, a variety characterized by a very high level of resistance to drought and the highest protein content of very high quality, a variety suitable for light acid soils, was removed from localization in 1980 even though in 1979 its yield in COBORU experiments matched that of Trumpf, and exceeded its yield in lighter soils and in the southern part of the country. Polon and Gryf withstand late sowing well and particular lend themselves as siftings for failed varieties.

For the present, COBORU continues to promote the removal of Polon from cultivation. In the publication: "Zboza jare; jeczmien, owies, pszenica" [Spring Grains: Barley, Oats, Wheat] (Notebook 476, Slupia Wielka, September 1980) it questions its fruitfulness and brewing value, and aims at eliminating it from regionalization. The withdrawal of Polon from regionalization and the basing of brewing barley production on the single Trumpf variety will bring about its complete collapse.

In the GDR, all barley production is based on the Trumpf variety alone. This has brought about the appearance on this variety of new very virulent strains of powdery mildews, reticular leaf maculation and other diseases, which have particularly adapted to this variety and have brought about a disastrous barley harvest. The use of the monoculture in barley cultivation has caused Trumpf to lose its valuable properties, such as: resistance to powdery mildews and other diseases and the rigidity of its straw, which is destroyed by diseases. For the above reasons, the GDR has withdrawn the cultivation of Trumpf and has introduced their own new varieties, although foreign varieties have resulted in higher yields in their experiments.

Since basing production on a single monoculture, even if the monoculture is of a very good variety and composition, is very risky, the FRG has over 40 varieties of spring barley under cultivation. Likewise, Czechoslovakia has nine of its own varieties of spring barley under cultivation and does not introduce the more productive foreign varieties, in order not to introduce new diseases. Meanwhile, with our introduction of foreign varieties we are spreading new diseases such as: reticular leaf maculation (Helmintosporium teres), black-leaf maculation (Rynchosporium secali) and new virulent strains of powdery mildews, to which domestic varieties were resistant.

Aramir and Diva, due to their large share in regionalization, likewise have lost their resistance to powdery mildews, since they manifest new virulent forms of this disease which have spread rapidly due to the creation of monocultures in particular voivodships. In Dutch experiments, Aramir and Diva are now the varieties most susceptible to powdery mildew and they result in reduced yields. The spread in Poland of new virulent strains of powdery mildews and other diseases common to Trumpf, Aramir and Diva results in the fact that their resistance to disease and their fruitfulness will be diminished. Retaining a greater number of domestic varieties in regionalization, Gryf and others, would check and spread of the virulent strains of powdery mildews on these varieties.

In 1978, following 4 years of research in COBORU experiments, varieties of B 9, which resulted in good yields on lighter soils, was not regionalized, and a new variety G 856, suitable for soils which are poor or very poor for raising rye and resistant to powdery mildews and other diseases, was not tested. The above decision was motivated by the fact that both varieties are lodged. These varieties are lodged in wheat soils and not in rye soils, for which they were designated.

Because of the elimination of Gryf and the large share of Trumpf in localization, farmers are forced to raise Trumpf on rye soils, in this way spreading the reticular maculation of barley and reducing harvests, particularly on the lighter soils. In order to prevent a decrease in barley harvests, Trumpf, Aramir and Diva must be limited, or rather removed from regionalization, and at least 10 new domestic varieties must be introduced.

In 1979, COBORU undertook experiments of the basic six Polish varieties: four brewing varieties and two fodder varieties. These varieties surpassed the regionalized foreign varieties in the initial experiments both in productivity and resistance to disease. The variety GOH 179 is tolerant of light and acid soils. In the general-consumption series of initial experiments, it placed first, producing higher yields on all soils than Diva, Aramir and Trumpf, which are superior in their resistance to powdery mildews and black-leaf maculation.

In 1980, COBOR undertook experiments with eight domestic varieties: two brewing varieties and six fodder varieties. In the general-consumption series of initial experiments (Table 2), the fodder varieties produced considerably higher yields than the foreign varieties Aramir, Diva and Trumpf. Of particular value is GOH 580, a variety tolerant to low pH. It may be raised on acid soils with a pH of more than 4, on lighter soils and fertile soils alike, since it is characterized by great straw rigidity.

Every year Polish farmers will present several varieties for experiments which are more productive than foreign varieties. In order not to introduce new diseases from all over the world and their virulent forms, we must regionalize foreign varieties which surpass domestic varieties only in exceptional cases.

Table 1
Average Results of Spring Barley Cultivation for the Whole Country from 1976-1979 and in 1980

Variety		Grain harvest in percentage of sampling		Lodging		Attacked by powdery mildews	
				deviation from sampling on a scale of 90			
		1976-1979	1980	1976-1979	1980	1976-1979	1980
Sampling in tons per hectare		4.5	3.4	7.3	6.5	7.8	7.1
			Varieties in cultivation assortment				
Aramir	NL (Holland)	102	108	+0.6	+0.6	0.0	+0.2
Diva	NL	106	108	-0.6	-0.7	-0.2	-0.2
Menuet	NL	103	104	+0.2	-0.1	-0.2	+0.6
Polon		98	100	-0.3	-0.2	-0.4	+0.3
Trumpf	GDR	98	96	+0.9	+1.3	0.0	+0.4
			Varieties submitted for the assortment				
Athos	F (France)	102	107	+0.6	+0.1	+0.2	+0.8
Gerlinde	GDR		95		+1.3		+0.4
Grit	GDR		99		+1.0		+0.6

Table
Table 2
Results of Initial Experiments on the Cultivation of Spring Barley, Fodder Series, Based on Grain Harvests in Six Localities, 1980

Variety	Average harvest tons/hectare	Harvest in percentages of average sampling	Resistance on a scale of 90		
			lodging	powdery mildews	rhynchosporium
Average sampling	4.9	100	5.1	5.9	5.5
STH 380	5.8	118	5.8	6.1	6.2
GOH 580	5.6	112	5.2	6.2	5.3
GOH 380	5.5	111	5.1	7.1	4.3
BKH 280	5.5	111	4.7	5.9	5.6
POB 480	5.5	111	5.3	6.4	5.9
GOH 480	5.5	111	5.4	6.7	5.5
Aramir	5.3	107	5.6	6.0	4.3
Diva	4.8	98	3.4	5.2	6.0
Trumpf	4.7	95	6.3	6.4	6.1

In Poland, the area under cultivation on light soils will not expand and the barley harvests will not increase if experiments and regionalization with regard to varieties similar to Dutch experiments are not carried out, i.e., some varieties on lighter rye soils and some on wheat soils. I refer to the above in numerous articles. Likewise the possibility of expanding the cultivation of barley on light soils is hampered both by our academy textbooks and our basic high school textbooks, which exaggerate the needs of barley. For example, in the textbook "Nowoczesna uprawa roslin" /Modern Cultivation of Crops7 (1979) it is stated on p 142: "Barley is susceptible to reactions in the soil and should be cultivated on soils on a pH from 6.5 to 7.0." Only the Trumpf brewing variety has such requirements. On the other hand, Gryf and Diva may be cultivated on light acid soil with a pH of more than 5. Actually, barley and other crops produce better yields on soils with a neutral reaction, and for this reason farmers should fertilize acid soils with lime. However, while this corrects the reaction of the surface layers of soil, the deeper layers remain acid. On such soils, varieties which are resistant to acidity will put down germinal roots that reach down as far as 2 meters, and varieties receptive to acidity will put down roots that extend only as far as the deacidified layers.

A great asset of spring barley is it early maturation, which enables the cultivation of postharvest cover crops and aftercrops. Barley has the shortest vegetation period of all grains, the greatest resistance to disease, drought and temperature extremes and it produces a harvest under unfavorable heat and watering conditions. Spring barley uses water economically and makes excellent use of mineral fertilizers. Of all grains, it needs the least water and nitrogen in order to produce a unit of solid bulk. The production of 100 kilograms of barley grain requires approximately 2 kilograms of nitrogen, while the same amount of rye and oats requires approximately 3 kilograms of nitrogen.

The cultivation of varieties adapted to the soil and climatic conditions of a given region is easier and produces speedier results under the cultivation of barley than under other grains. Varieties painstakingly selected for the soil and climatic conditions produce higher yields and give better results than rye and oats on all types of soils.

Not only do currently cultivated varieties of barley yield large grain harvests, but they also produce a large number (about 700) of spikes of straw per square meter, due to the creation of good density. Rye yields lower harvests of grain and straw producing approximately 300 spikes per square meter, and even less in the event of damage caused by fusarium wilt. Barley straw is of considerably greater fodder value than the straw of other grain, not only because it contains more protein, but also because it is not susceptible to diseases.

It is written in our textbooks that when more than 50 percent of the sowing structure is given over to grains, even in the case of fertile soils, rye should be sown after wheat and other grains as a phytosanitary crop. But meanwhile rye and winter wheat, which have a lengthy vegetation period (11 months), become infested with weeds and contaminate fields with crop-rotation diseases, fusariums and stalk brittleness, particularly when varieties which are susceptible to these diseases dominate in planting, such as Grana and Dankowski Zloty. If, within a month after Grana is harvested, Dankowski Zloty is planted, then the crop-rotation diseases will pass immediately from Grana to Dankowski Zloty and they will develop together over 22 months. In the cultivation of spring barley following wheat, crop-rotation diseases have no host for 8 months and their development is checked.

Spring grain, particularly spring barley, which has a very short vegetation period--3 to 4 months--for the most part in temperatures which do not foster the development of crop-rotation diseases, is not subject to fusarium and stalk brittleness which require temperatures within the interval of 4° to 13° centigrade for 2 to 3 months to develop. In the cultivation of barley in large amounts with a cover crop or aftercrop there are considerably fewer crop-rotation diseases than in the cultivation of winter grains in large amounts. Given this consideration, barley is a more phytosanitary crop than rye. Barley cultivated with a cover crop or aftercrop following it, or followed by other grains, produces a lesser decline in harvests than rye with a lengthy period of vegetation cultivated in this manner. In the cultivation of rye following the cultivation of rye or other grains, because of the very short lapse of time (about 1 month) between the harvest and sowing, there is no possibility for cultivating aftercrops or cover crops, or for applying a whole series of postharvest cultivative measures for battling diseases and weeds. On the other hand, between the grain harvest and the sowing time of barley, there is approximately 8 months for the growth of postharvest cover crops and aftercrops or for battling weeds and diseases with the aid of a set of cultivative measures for regenerating the fertility of the soil. In the cultivation of barley, following the aftercrop the situation following grains does not apply, but rather the situation following the cultivation of lupin, cole, or bird's-food. If we intend the aftercrops for green fertilizer, a very favorable situation will be created for barley.

For the above reasons, in various countries, e.g., Denmark, the FRG and Hungary the cultivation of barley with a cover crop over 3, 4 and even 5 years has become widespread. Denmark has approximately 70 percent grain in its sowing structure: over 50 percent barley, of which the average yield is 4 tons/hectare. In the FRG, grain takes up over 70 percent of the sowing structure and produces high yields on the average of about 4.8 tons/hectare, although grain follows grain in the sowing structure. This is why it is possible for us to cultivate barley with a cover crop on rye soils following root crops for 3 years, or to sow rye in the third year; it would then be easy to reach 75 percent barley in the sowing structure, or 50 percent barley and 25 percent rye. Barley will produce high yields under the condition that a large portion of the aftercrops are intended for green fertilizer.

Barley should be sown as early as possible in March, to the extent that atmospheric conditions and soil moisture allow. In the early sowing of tolerant barley varieties which are resistant to soil acidity, germinal roots are put down to 2 meters, from which the crop draws and is supplied with water and in the event of a dearth of rainfall the crop suffers less from drought. Varieties receptive to soil acidity put down germinal roots to several centimeters and in the event of drought they die. Before sowing, seeds should be treated against the diseases of leaf striping and smuts. Barley and not rye should be planted after root crops on lighter soils. Farmers often sow rye following late-harvested root crops, which, as a consequence of late sowing, becomes flooded and yields a poor harvest. On the other hand, barley makes better use of such a situation of rye soils than rye, which has lesser needs with regard to the preharvest period but is very susceptible to agrotechnical impropieties and must be sown within an optimal period in soil which has lain fallow.

On light soils rye currently occupies 50 percent of the cultivated area, and farmers follow rye with rye. This fosters the rapid spread of crop-rotation diseases (particularly in the cultivation of varieties which are very susceptible to spike diseases) such as gaps in kernels, fusarium wilt, root rot, stalk brittleness and others. Reducing the share of rye in the sowing structure and increasing the cultivation of barley on light soils can increase grain harvests, because then rye will not be subject to diseases and will produce higher yields due to the fact that sowing was done in an optimal period and the proper agrotechniques were applied.

Withdrawing rye from cultivation on fertile soils and average soils and expanding the raising of barley, which has a very short vegetation period, not only reduces the occurrence of crop-rotation diseases, increases grain yields per hectare, particularly yields of plant protein, but also creates conditions for the production of two harvests per year: barley and the aftercrop or a postharvest cover crop. The great added effect of cover crops and aftercrops upon soil fertility speaks for the cultivation of these crops. Aftercrops and cover crops not only correct the soil structure, but they also increase the soil's humus content, since a large mass of postharvest leavings remains after the harvest. In particular, the cultivation of aftercrops for green fertilizer following root crops and even barley corrects the soil fertility and deacidifies it. Expanding the cultivation of aftercrops and postharvest cover crops also yields additional fodder, which enables the area used for fodder crops in the main harvest to be restricted.

The cultivation of winter wheat should also be limited for a certain period, due to the severe contamination of fertile soils with crop-rotation diseases by Grana. These diseases include bent-grass infestation, camomile infestation and poppy infestation. Such restriction should continue until varieties more resistant to the above diseases are introduced, such as Sylwia (S282/72), Liwia (188/72), Saga and others.

On fertile soils, a five-field crop rotation plan should be put into effect: 1) root crops (beets), 2) barley with a cover crop, 3) clover with grasses, peas or cole, 4) winter wheat with a cover crop or aftercrop, 5) spring barley with a cover crop or aftercrop.

On lighter soils the following three-field crop rotation plan may be applied: 1) root crops--barley--rye with a cover of cock's-foot or bird's-foot; 2) root crops--barley with a cover of cock's-foot or an aftercrop--barley with a cover crop or aftercrop; 3) lupin--rye (barley) with a cover crop or aftercrop--barley with a cover crop or aftercrop.

On farms specializing in animal production, the second crop rotation is better since it provides much fodder: Poly Past beets--barley with a cover crop or aftercrop--barley with a cover crop or aftercrop. Barley with a cover crop or aftercrop yields considerably more fodder than corn and potatoes--4 to 5 tons of barley grain per hectare has the same feed value as 23 to 28 tons of potatoes per hectare. Moreover, very valuable straw is also harvested as well as 10 to 20 tons per hectare of postharvest green forage.

Early French corn mixtures in cold years (e.g., 1980) often yield a green-forage harvest similar to the harvest of postharvest cover crops--10 to 20 tons/hectare. Feeding ruminants corn in such a situation makes animal production unprofitable.

Cattleraising becomes more profitable if it makes use of fodder from additional harvests as much as possible, i.e., from aftercrops, postharvest cover crops, beet leaves, beet pulp, barley straw and minimally uses the main harvests of grasses, clover, alfalfa and beets.

The greatest amounts of fodder on arable lands may be produced from sugar beets and sugar-fodder beets. The beet in our climatic conditions is the most bountiful crop and produces an unfailing harvest. Beets do not have a critical period during which the crop requires a great deal of water, and while a drought will cause them to wilt, they will not die. Then, with new rainfall, they quickly continue their growth and produce a bountiful harvest. Beets are less susceptible to diseases and drought; they yield considerably more fodder than potatoes and corn. Even those beets raised for industrial purposes supply more fodder than corn from their byproducts (leaves and pulp). After the root is harvested, the leaves alone, which provides 25 to 30 tons per hectare have the same value as 3 to 5 tons of oats.

Numerous studies in the area of animal feeding have proved that both fodder beets and sugar beets make good fodder. The latter are particularly well-utilized by pigs, for which they may replace potatoes. In the feeding of pigs, unlike potatoes, sugar beets and sugar-fodder beets do not require peeling, thus reducing the costs of fattening the swine and enabling a savings of a considerable amount of fuel. Poly-Past beets, with regard to their digestibility and taste appeal, should play a great role in the feeding of cattle and sheep. In the feeding of animals which are being fattened, beet slices with added urea may replace grain fodder, guaranteeing 60 percent of the protein requirement. Beets are also good raw material for the production of dried material which may partially replace grain in concentrated feed. According to scientific calculations, the average domestic harvest of beets per hectare yields carbohydrate fodder for twice as many animals to be fattened than potatoes, including leaves enough to feed 5 cows for 200 days.

With the major application of nitrogen fertilizer, sugar beets and fodder beets may be raised not only in the main harvest but also in the secondary harvest, under the condition that they are sown before 15 May. The combined harvest of bulk mass, particularly of raw protein yielded by the winter harvest (rye) and the secondary harvest (beets) is considerably higher than that of beets in the main harvest. Beets make considerably better use of the position following a rye harvest than potatoes or corn. Corn and potatoes stop growing at the end of September (fall hoar frosts), while beets continue fairly intensive growth nearly to the end of October. The results of experiments conducted in Malyszyn demonstrate that beets withstand periods of summer drought better than potatoes and corn both in the main harvest and in the secondary harvest. In the very dry year of 1970, corn, especially corn in the secondary planting, as a consequence of a lack of moisture in the soil almost completely dried out and was not in a condition to resume growth following the August rains, while beets, which had also dried out severely, began to grow intensively after the rains and thereby yielded a relatively large harvest.

A major application of mineral fertilization (over 350 kilograms of NPK /Nitrogen-Phosphorus-Potassium/ per hectare) makes possible the cultivation of beets not only on goods soils but also on poorer soils of the fifth class with success (these are found where the rate of cultivation is high) with the result that the fodder yield is greater than in the cultivation of potatoes. The raising and harvesting of beets lends itself to considerably greater mechanization than potatoes, particularly on larger acreages. At the present time, it is possible to mechanize beet cultivation more fully, particularly on larger acreages, thus eliminating hand work. Such is not the case with potatoes. This is possible due to the supplying of farmers with single-shoot seeds, efficient machinery (single-seed drills and harvesting combines) and herbicides.

Potatoes designated for processing in agricultural alcohol distilleries may be replaced to great advantage. According to research and calculations made, in the cultivation of sugar beets for the alcohol distillery industry, nearly twice as much spirits is obtained per hectare than in the cultivation of potatoes, as well as fodder from beet leaves. In the transition to alcohol production from sugar beets, the area saved may be designated for beets or other crops. The transition to beet processing in existent distilleries requires only the adaptation of cutters and the installation of diffusers, which would have to be produced by the industry.

In light of the above, in addition to the traditional cultivation of sugar beets for the sugar industry, it is worthwhile to consider their cultivation for fodder and distillery use. It should be emphasized that the area under cultivation of beets for the sugar industry should not be reduced. In light of the very good sugar trade on the world market, the area given over to beet cultivation for this purpose should be considerably expanded.

Sugar beets are the most profitable crop to raise. Included in the compensation for beets from the sugar refinery are very valuable fodder, leaves and pulp. In nations with highly developed agriculture, i.e., in Denmark and Holland, beets make up over 20 percent of the sowing structure. We should also increase both our area of sugar beet cultivation for the sugar industry and our area of beet cultivation for fodder and distillation, which should make up 10 percent of our sowing structure, i.e., 1.5 million hectares. The above is wholly realistic, although this means a revolution in our sowing structure and in our agricultural production in general. However, such a move is necessary if we want to correct our domestic fodder situation in a more radical way.

Beet cultivation on individual farms, both for industry and for fodder purposes, should be done on field plots.

Conclusions

--The area of grain cultivation should be expanded to 8.5 to 9 million hectares, in the following way: barley--5 million, wheat--2 to 2.5 million, rye--1 million, and oats--0.5 million.

--On light soils grain should make up about 65 percent of the sowing structure, in this way: barley--40 percent, rye--20 percent, and oats--5 percent. On fertile soils, grain may make up 55 to 60 percent of the sowing structure, wheat--25 percent, barley--30 percent and oats--5 percent.

--The number of spring barley varieties in regionalization should be increased to at least 15 percent, of which 5 percent should be designated for light soils of the fourth, fifth and sixth classes.

--All school textbooks which exaggerate the requirements of barley should be modernized.

--The expansion of barley cultivation with postharvest cover crops or aftercrop grasses or beets up to 10 percent of the sowing structure will lay the foundation for a rapid increase in animal production based on cheap, healthful, domestic fodder and will eliminate the import of grain and shortages of meat, meat productr and sugar.

Production, Use in Socialized Farms

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/Article by Dr Dariusz Minakowski, Ar-T (Agricultural-Technical Academy) in Olsztyn/

/Text/ Ruminants, particularly milk cows are anatomically and physiologically capable of converting a considerable amount of bulky feed. Their ability to use bulky feed and the nonprotein nitrocompounds NPN places them in a special position in animal production. This is of special significance under conditions of a shortage of concentrated feed (grain and high-protein), which are indispensable for the feeding of poultry and swine.

In this conjunction, in addition to their potential for utilizing NPN and other unconventional fodders and byproducts of the agricultural-food industry, the need for the following should also be kept in mind in the production of fodder and in the organization of cow feeding:

--the production of amounts of fodder in sufficient quantities to feed cows, with their nutritive components concentrated for ruminants;

--the reduction of the loss of nutritive components to a minimum, as well as of the significant differences which occur in practice in the nutritive value of agricultural fodders; such differences are caused, among other ways, by the varying quality of raw material, by harvesting at the improper time and by faulty technology in production and preservation;

--improvement of the production properties of the contents of fodders and their utilization with regard to their composition and uniformity of quality.

The energy contents in the bulk mass of basic fodders for cow feeding should amount to 5.4 MJ /Mega-Joules/ of net fat-producing energy /ENT/ per kilogram of bulk mass, which corresponds to 0.9 j.o. /oat units?/. The energy concentration required and the greater consumption which determines that the nutritive needs of animals will be met may be achieved through the utilization in feed of silage derived from withered or partly dried green forage or from corn picked in its stage of waxen maturity. In the same way, the production of dried material from green forage, whole grain plants or root plants produces fodder of high value with a clear reduction in the loss of nutritive components, with however a relatively large input of energy.

There is a close link between the productivity of cows and their need for bulk mass, between the digestibility of an organic substance and the concentration of energy in 1 kilogram of a bulk mass drench (table 1). The required digestibility of an organic substance drench (70 to 80 percent) and thereby the drawing of the energy available may be achieved if the contents of raw fiber ranges within 18 to 24 percent of the bulk mass drench. In the event that this component exceeds the above amount, the digestibility of the organic substance is decreased and the drawing of energy and takein of the bulk mass drench are reduced. The concentration of general protein in the bulk mass drench should be 12 to 15 percent. The contents of this component in many types of agricultural fodder is likewise high. For example, in alfalfa, clover and young green forage from grasses or rye there is even an excess of nitrocompounds relative to the needs of cows.

Table 1
The Interdependence Between the Productivity of Cows and the Need for Bulk, Between the Digestibility of an Organic Substance and the Energy Concentration in One Kilogram of Bulk (Ruszczyc, 1979)

Daily productivity in kilograms	Bulk takein kg per day	Bulk per 100 kg of body mass in kg	Digestibility of organic substance in percentages	Required amount of j.o. in 1 kg of bulk drench
10	14.0	2.5	66	0.69
15	15.5	2.8	70	0.75
20	16.5	3.0	74	0.83
25	17.5	3.1	77	0.93
30	18.5	3.3	80	0.98

Organization of the Fodder Base

The production of agricultural fodders should be so organized is not to reduce the production of goods resulting from crops, to raise the most productive crops which, together with the green forage of natural grasslands would meet fodder needs. Fodder crops in field cultivation, of which a significant portion may be designated for silage, represent at present one of the basic elements of fodder production for ruminants in the socialized economic sector.

In most socialized agricultural enterprises, there are also great potential possibilities for increasing the productivity of grasslands, e.g., in the northeast region of the country it is estimated that approximately 27 tons of green forage per hectare are obtained from the meadows, which corresponds to approximately 5,400 j.o. The introduction of the more rational use of these grasslands can raise their productivity to considerably more than 10,000 j.o. per hectare. This is demonstrated by numerous examples from practice and from studies which have been conducted. The production of fodder in a secondary harvest should supplement and provide a reserve of nutritive components derived from the main harvest.

The general production schema for fodder may be represented in the following manner:

In the main harvest:	In the secondary harvest:
--grasslands,	--sugar beet leaves,
--perennial leguminous crops and their mixtures with grasses,	--winter aftercrops and others,
--annual fodder crops with a long growing season (corn, beets, cabbage),	--byproduct production from crop goods production (straw, chaff),
--annual fodder crops with a short growing season (legumes, sunflower, barley, oats).	--byproduct production from the agricultural-food industry (beet pulp, decoctions, residues and the like).

In the organization of agricultural fodder production there is a tendency on high-volume farms to simplify the sowing structure, i.e., three or four crops are raised in the main harvest. These are chosen according to the given soil-climatic conditions.

Fodder crops in field cultivation should correspond to the following conditions, among other things:

--soil requirements that are not too stringent;

--resistance to drought;

--high productivity per hectares;

--a large degree of suitability for the production of silage;

--a high concentration of nutritive components according to the percentage of bulk;

--the possibility of using modern machinery in harvesting.

The many crops which meet the above conditions and thus may be of significance to modern organization of a fodder base include the following: beets (sugar, sugar-fodder, fodder), corn, fodder cabbage, grasses purely sown or as a postharvest cover crop, alfalfa and clover purely sown or in a mixture with grasses, potatoes, a mixture of barley and oats with an aftercrop following, e.g., of fodder cabbage, and lupin with winter cole planted following it as an aftercrop.

For the corresponding groups of farms, a selection of the most appropriate fodder crops having high and reliable yields should be made. In conjunction with this, a sowing structure is set up composed of the three or four crops and the aftercrops which will result in the most bountiful harvests.

Total success in fodder production may be achieved with the use of mechanized cultivation and harvesting of fodder crops. It also helps to keep the loss of nutritive components to a minimum and to maintain the high quality and nutritive value of fodder. It is a well-known fact that in many instances considerable amounts of fodder raw material are yielded, but the processing of this raw material into fodder engenders many doubts. This is attested to by the very heavy losses incurred in the production of fodders from green forage, for example, (30 to 40 percent of the digestible nutritive elements) and the low quality of the resultant fodders. In conjunction with this, one way of improving the fodder balance, perhaps the most important way, is the proper preservation of fodders.

Fodder Preservation

One of the basic methods for preserving fodders under conditions of high-volume goods production should be the silaging of crop raw materials. This issues from the facts of the use of large amounts of green forage designated for preservation on socialized farms and of the frequent occurrence of unfavorable atmospheric conditions for the production of hay, as well as the limited possibility for drying the raw material. There is likewise much to be said for the possibility of the complete mechanization of harvesting and silaging, for limiting work input and reducing costs.

The application of the proper technology in the production of silage can bring about a considerable reduction in the loss of nutritive elements (table 2).

Table 2
Losses in Nutritive Elements Through the Silaging and Drying of Hay Grown in a Meadow (according to data from the Institute of Feed and Fodder Management, AR-T in Olsztyn)

Method of preservation	Bulk mass in percentages	Generally digestible protein in percentages	Units of oats in percentages
Silaging of meadow-grown hay with natural moisture-content	21.4	24.8	23.6
Silaging of meadow-grown hay partially dried /hay-silage/	12.3	22.6	23.7
Drying of hay on the swath	28.4	41.1	50.6
Production of dried material	5-7	4-7	5-8

It should be pointed out that the production of silage creates the possibility of keeping field losses to a minimum and makes the harvest possible, regardless of atmospheric conditions, during such phases of crop growth as will result in the most valuable fodder with the maximal harvest of nutritive elements under the given conditions. By adhering to requirements and, at the same time, systematically improving the technology of silage production, reserves enabling the correction of the fodder balance in agriculture are freed up.

The kind of technology applied in the production of valuable silage with the proper quality of green forage and a high level of productivity plays a very important role. However, aside from the technology applied in the production of silage, the following principles must be observed in order for the effects to be satisfactory:

--the harvest of a large enough mass of raw material must be accomplished in as short a time as possible;

--the harvest of raw materials should be carried out at the proper time (during the phase of silage maturity) without mineral or other pollutants;

--the proper amount of machinery and equipment should be readied for harvesting and producing silage, and the successive stages of production technology should be implemented properly;

--raw materials should be designated for the production of silage directly after harvesting, withering or partial drying;

--green forage should be broken down, particularly in the case of the production of silage with a higher concentration of bulk;

--the speedy and consistent stacking of the silaged raw material on piles or in receptacles should be observed, together with the systematic application of pressure.

The technology of silage production includes the possibility of using raw material with differentiated bulk mass content;

--with natural moisture-content (up to 27 percent of bulk mass),

--withered (27-40 percent of bulk mass),

--partly dried (40-60 percent of bulk mass).

Harvesting crops should be accomplished during the period of the greatest potential protein and energy content together with the optimal content of raw material. In this regard, leguminous crops should be harvested during the phase of full budding up to the beginnings of blooming, and grasses should be harvested during the period including the beginning to the middle of the period of blooming. At the same time, it should be noted that younger green forage from grasses or legumes (harvested 2 weeks earlier than hay) is designated for silaging, thereby making it possible to obtain a greater amount of swaths from grasslands or to make earlier use of growth from part of the pasture.

The question of the proper time for harvesting corn and certain other grain crops shapes up differently. The nutritive value of corn increases in the latter phases of vegetation until the period directly preceding full maturity of the seed. The harvest of other grain crops, e.g., barley and oats, when these are designated for silage production, should be carried out in the period of the maturity of the waxen seed.

Depending on the variety of corn (late, early) and the course taken by the weather during the growing season, the harvest of this crop is executed at a different stage of maturity. Often in the event of harvesting in the early phases of growth (milky maturity, milky-waxen, maturity of corn), the green forage is too moist (16-18 percent of bulk mass), which causes silage with a lower content of nutrients (up to 0.17 j.o. per kilogram) to be obtained. Such silage as a rule contains more organic acids and is thereby sourer and less readily consumed by animals (the bulk intake in such fodder is reduced; table 3). The fermentation losses in the production of this silage are also higher. For this reason, drying additives should be used (increasing the content of bulk mass), e.g., chaff from straw or husks in the amount of 10-15 percent of the silaged mass of green forage, as well as such additives as extracted cole mash undebittered in the amount of 10-12 percent.

A corn harvest completed during a period of waxen maturity of the corn enables silage with a content of approximately 30 percent bulk mass to be obtained. This is characterized by a lower degree of acidity (pH 4.2) with a decided preponderance of lactic acid and a lack of butyvic acid. The nutritive value of 1 kilogram of such silage is approximately 0.3 j.o. and 10-12 grams of generally digestible protein. The silaging of corn at waxen maturity of the seed may make use of additives such as beet leaves, green forage from grasses and leguminous crops from the most recent mowings.

Table 3
The Intake of Bulk Mass in Silage Made From Corn and the Milk Productivity of Milk Cows Dependent Upon the Bulk Content in Silage Made From Corn in Kilograms per 100 Kilograms of Body Mass (Desweysen, 1975)

Phase of corn vegetation	Percentage of bulk mass	Consumption of bulk mass per 100 kg of body mass	Amount of milk obtained in kilograms
Milky maturity of corn	20	1.8	9
Milky-waxen maturity of corn	25	2.0	11
Waxen maturity of corn	30	2.2	14
Nearly full maturity of corn	35	2.5	18

Hoar frosts, which may strike corn, do not have a negative effect on the suitability of corn for silaging under conditions of the immediate and efficient harvesting of green forage from the fields. On farms which do not have available a large amount of protein fodder for cattle, corn silage may be enriched with success with urea or ammonium sulfate in the amount of 0.4-0.6 percent.

In the event of the silaging of other green forage directly after the harvest, most often a silage with a relatively low concentration of nutritive elements (per unit of mass) is obtained, and fermentation processes do not always proceed properly due to the large water content. This applies especially to raw material which is difficult to silage. Such silage usually contains much acetic acid. In the case of soil contamination likewise much buytric acid is present. For this reason, such silage is never of good quality and is unwillingly consumed by animals. Excess moisture may be reduced by withering or partly drying green forage, by adding straw fodder in the amount of 10-25 percent (straw, chaff, husks) or other drying agents such as: dried material from green forage or from whole crops as well as extracted cole mash. In this way, both improved quality and higher nutritive value are obtained along with better taste appeal of the silage (less acetic and buytric acid), and the silage is considerably more willingly consumed by animals, and in greater amounts. A significant reduction in the loss of nutritive elements also occurs (the juice from the silaged mass has no effect, the fermentation processes are limited), which leads to an increase in the units of oats and the protein in the given area of harvesting.

Feeding animals such silage enables the consumption of a great amount of bulk by these animals, facilitates feeding, makes possible homogenous feeding throughout the year and makes the transition from winter feeding to summer feeding more normal. An added feature of silage made from withered green forage is its lessened predisposition to freezing during the winter.

The preparation of silage from withered green forage is connected with a two-phase green forage harvest. After it is mowed, the green forage remains in the swath or on a bank for 1 to 2 days to wither. The withering of green forage primarily depends on the weather conditions--in very good weather the humidity drops 2 percent, and in good weather it drops 1 percent during the course of 1 hour of drying. The evaporation of water from the green forage may likewise be hastened by tedding, which is particularly recommended in the event of lush growth and bad weather. In very good weather, it is recommended that the green forage be banked directly after mowing. In this way the loss of carotene will be significantly reduced.

After withering or partial drying of the green forage down to a volume of 35-45 percent of its bulk (after it is twisted into straw-rope it does not release any juices) it is harvested. For this purpose, the best implement to use is a field chaff-cutter or a forage harvester (with the scythe removed) or, as a last resort, an Orkan forage harvester. The use of machinery and equipment to cut the forage into chaff is particularly recommended, but then the forage must be hauled by trailers with built-up sides (so that less forage is lost). In the event that a farm is lacking the machinery and equipment for cutting or enclosed trailers, the whole forage crop must be harvested and cut into chaff directly after the receptacle or pile is heaped up high enough. However, for technical reasons these measures are difficult to implement under production conditions.

The compression of the silaged raw material should be carried out during the whole extent of its haulage. Especially favorable results are achieved through the use of heavy wheeled tractors (greater unit pressure). It should also be kept in mind that a layer of fresh forage should be placed on top, likewise to facilitate the compression of the basic raw material. The silaged mass should be further compressed at a time about 3 days after loading (to prevent its becoming overheated). In the event that this cannot be done, it should be completely covered with foil and weighed down with soil.

Additives supplying the proper amount of sugars or chemical preservatives also have a positive effect on the quality of the resulting silage, as well as helping to reduce the loss of nutritive components in production. These additives should be applied primarily to high-protein green forage (leguminous crops, grasses and others) with natural moisture. Among the additives containing a large amount of sugar are: green forage from low-protein crops, e.g., corn, root crops (beets, green forage), molasses, fodder sugar, dried beet material and the like. Normally the additives are applied in the following proportions: 2-4 percent molasses, 1-2 percent fodder sugar, 1-3 percent dried beet material or 10-15 percent cut up sugar beets. The silaging of high-protein crops may also be done with the application of chemical preservatives (sodium pyrosulfite 0.4-0.6 percent, low-carbon organic acids such as propionic acid, formaldehyde or a domestic preparation "Acidol").

Although green forage may be silaged in all sorts of receptacles, not all receptacles are suitable. It is currently recommended that green forage be silaged in a reduced amount of water, and then there are difficulties with the proper compression of the silaged mass, one of the basic conditions for successful silage. In order to increase compression, it becomes necessary to use heavy mechanical equipment (tractors) which cannot be used where there is a series of receptacles (e.g., round, rectangular and the like). On the other hand, receptacles that may be driven, which are the most universal, pass all the requirements. The virtues of such receptacles are:

--the possibility of the thorough and easy compression of raw material;

--ease in filling and emptying the receptacles;

--the possibility of full or considerable mechanization of silaging;

--the possibility of producing silage of high quality and nutritive value from withered and partly dried forage;

--ease of construction (use of machinery, use of prefabricated elements and the like).

Where there is a lack of permanent receptacles of the proper size, forage may be silaged in improvised receptacles, e.g., in above-ground piles or piles partly buried, or in improvised straw or wooden receptacles or the like.

It should be added that when forage is silaged under such conditions the loss of nutritive elements will be greater, primarily as a result of the loss of juices and the spoilage of the outer layers of silage. These losses will be reduced in proportion to the increase in the general mass and weight of the silaged green forage, i.e., the ratio of the volume of the silaged mass to its surface area which has been contaminated by spoilage.

The problems which we have discussed relative to the techniques and technology of silage production demonstrate the existence of real possibilities for producing valuable fodder on farms. In the course of silage preparation special attention should be directed to ensuring that there are no basic blunders committed, of which the most frequent are:

--the unrhythmical and overlong loading of raw material into silos or heaping up in piles,

--the improper shape and size of piles;

--the careless breaking up of raw materials and contamination with soil;

--the production of silage from raw materials having excessive moisture without the addition of drying agents;

--careless compression and covering of the receptacle or pile.

Taking into consideration the need to increase the production of valuable silage on farms, it is recommended that:

--receptacles that may be driven be built;

--the production of silage from productive crops be undertaken;

--silage be produced from raw materials having a reduced moisture-content as a result of the partial drying of green forage or the addition of straw fodders;

--the choice of the type of silaging technology to be used should be the type best suited to a given farm, depending upon the technical equipment which is owned.

The Feeding of Cows and Preparation of Fodder

The most universally used farm fodder for the feeding of milk cows, particularly in high-volume goods production, is silage, including silage with a raised bulk content. Silage with a raised bulk content, including hay silage from grasses or leguminous crops with grasses (bulk mass content approximately 40 percent) may be used as basic fodder for cows together with the feeding of bulky fodder with a lower protein concentration, e.g., in conjunction with silage made from corn, beet leaves, or pulp.

In order to meet the daily needs and the production needs for 15 kilograms of milk with a butterfat content of 4 percent, milk cows of an average mass of 550 kilograms should be fed, for example, 20 kilograms of hay silage from grasses or leguminous crops with grasses, and additionally:

--25 kilograms of silage from corn in its milky-waxen maturity;

--or 26 kilograms of silage from sugar beet leaves together with the tops;

--or 5.3 kilograms of dried beet pulp;

--or 35 kilograms of fodder beets.

The above examples of nutritive drench demonstrate the possibility of the considerable simplification of the feeding of milk cows and the mechanization of the process of feeding fodder.

The rational utilization of the raw materials from byproduct production on the farm for fodder, including straw, chaff, beet leaves, pulp and decoctions is also of some importance for the improvement of the fodder balance. The use of grain straw for fodder merits special attention. The traditional system of feeding straw does not allow for the full utilization of nutritive elements contained in this fodder due to the low intake rate by animals. The consumption of straw in great amounts is achieved by breaking it down (cutting it into chaff, grinding it, compressing the broken-down straw into granules and brickets) as well as silaging with fodder raw materials having a high water content.

The share of straw in feed drench differs depending upon the composition of the drench and the direction of production. In general, the amount of straw that may be contained in feed drench for cattle should amount to 10-15 percent of the bulk of the total drench for a fatling and 15-20 percent for milk cows.

To the end of increasing the nutritive value of grain straw, chemical methods of enriching this fodder are being applied more and more often depending upon the technical possibilities of the farm enterprise. Thanks to the combination of the methods of the physical processing of straw (cutting up into pieces) and chemical processing (leaching), the digestibility of its energy is increased.

In recent years, various technological methods have been introduced for the treatment of straw to be used for fodder, with the possibility of the production of mixtures to provide a complete drench (with a considerable share of straw). In some enterprises which possess automated fodder-processing plants imported from Denmark, complete drench-bricket mixtures are produced for cattle containing 20-50 percent straw enriched by leaching (a 4 percent solution of NaOH [Sodium-Hydroxide]). Likewise, a technology developed domestically (type H-061) for the production of fodders with a large share of straw enables the production of complete drench mixtures designated for fattening cattle or for supplementing drench for milk cows. On some farms, fodder produced through the use of the bricket method for fodder H-061 contains 50-80 percent straw and is fed as a mixture supplementing the feed drench of cattle. Such fodder may be used in conjunction with mixture B, silage and decoctions.

A different method is used for producing fodder which includes, among other things, a decoction and straw (in the form of chaff). This method uses an assembly for macerating the straw according to technology developed by CLPR [The Central Laboratory of the Agricultural Industry]. Straw used in the production of such fodder may be subjected to additional leaching in sodium hydroxide,

As is evident from the above, the production of fodders for cows is, and will be, modernized with close ties being maintained with crop production. Changes in the manner of keeping cows (from keeping them tied to setting them free) on farms, together with the observance of the principle of dividing cows into technological groups, require the utilization of high-quality basic fodders blended into a homogeneous feed. Taking into consideration the need to balance drench, in our selection of simplified contents of fodders we must pay special attention to the supplementation of fodders in terms of the required makeup of elements in the light of nutritive needs.

There is observed the tendency toward the application of two and, maximally, four types of fodders in cow drench. This system of feeding cows may be based on the use of hay silage in drenches or of silage with an increased amount of bulk (from clover, alfalfa with grasses, barley and oats, corn). Under conditions of the large-scale raising of many cows usually a mobile system of transporting and feeding fodder is used. The basic elements of such a system are: a claw loader, sometimes a silage picker, WP-3 fodder wagons from Brzeg and the imported KTU-10. A stationary system of transporting and feeding fodder is in operation domestically in certain experimental cow barns, and it is recommended for smaller barns. There is a continual lack, however, of full technological lines which would enable the attainment of favorable production results.

The mechanization of feeding and problems in connection with the considerable losses in nutritive elements in the production of traditional agricultural fodders as well as their storage have engendered an increased interest in feeding dry mixtures of ready-mixed fodders, treated as substitutes for typical bulk fodders. However, in the face of the range of problems connected both with their production on a broad scale and the full mastery of the technology of their utilization in the mass feeding of cows, the production of this type of fodder continues to be very limited.

The need for an increase in per unit milk productivity and the need to reduce or eliminate the metabolic disorders which occur too often among cows, particularly cows raised on specialized farms created the necessity not only of improving the quality of farm fodders, but also of increasing the level of available energy (digestible) in drenches by ensuring the intake of larger amounts of bulk. It is possible to raise the energy level of feed drench for cows without increasing the consumption of concentrated feed by means of an additive of dried beet pulp. This makes it necessary to increase the production of this fodder on a large scale. The use of an additive of dried beet pulp in the amount of 4 kilograms per head daily into the feed drench for cows during the first 100 days of lactation, independent of the feeding period (summer or winter) also increases productivity and improves the technological quality of the milk. In the event that there is a lack or a shortage of this fodder, other low-protein fodders, such as dried beet material or dried material from whole grain crops harvested during the phase of the waxen maturity of the grain may be introduced successfully into the drench. In the later period of lactation, i.e., from 100 days until drying up, using an additive such as beet pulp or other energy-producing fodders depends on the current milk productivity of the cow and should be used, for example, in the case of drenches composed of good-quality farm fodders in the amount of 0.3 kilograms per kilogram of milk over 10 kilograms of daily productivity. There is likewise the need to guarantee the continuity of feeding and to eliminate the high frequency of changes in the composition of feed drenches, especially during the period of the winter feeding of cows.

Increasing the efficiency of the feeding of cows while preserving the required homogeneity of the exploitation of cows during a given period requires the division of the herds of cows into feeding or technological groups. For example, there may be a division of cows into the three following groups: those up to 100 days of lactation, those from 100 days of lactation to drying up and those cows which are dry. The homogeneity of the composition of feed drench is particularly essential during the period 3-4 weeks before calving and during the first 100 days of lactation.

In the feeding of a homogeneous mixture of fodders over a long time period, one should remember that the drench should be fully balanced not only in terms of its energy-producing elements and protein, but also from the viewpoint of the proportion of energy-producing components and nitrogenous elements, as well as its mineral and vitamin composition. In this way, even if the milk productivity is very high, the possibility of the occurrence of some sort of deficiency is excluded, and a favorable effect is exerted upon the productivity, health and fodder utilization of the cow. The use of multicomponent, premixed fodders for feeding cows with simplified fodder contents is a necessary condition for increasing the effectiveness of feeding.

8536
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DIRECTIONS FOR ECONOMIC REFORM SUMMARIZED

Warsaw TRYBUNA LUDU in Polish 4-5 Jul 81 p 5

[Article by M. Gajewski and J. Ostaszewski]

[Text] At the fifth plenary session of the Commission for Economic Reform, over which--with the authorization of the premier, General W. Jaruzelski--H. Kisiel presided, a new draft of assumptions for economic reform was evaluated, a working document entitled: "Directions for Economic Reform."

The draft was presented by Prof W. Baka, secretary of the commission and also--as of yesterday--head of the Plenipotentiary Bureau for the Administration of the Reforms. He presided over an editorial team appointed in May of this year by the commission and made up of the following members: St. Albinowski, Cz. Bobrowski, L. Gluck, C. Jozefiak, J. Knapik, J. Mujzel, and Cz. Skowronek. Consultants were: L. Balcerowicz, J. Kaczmarek, J. Kaleta, J. Kramerowa, A. Lukaszewicz, and J. Pajestka.

The answer to this question [of reform as in this new draft] is unique: considerably better on all scores than the original. It [the document] was prepared with careful attention to the discussion which revolved around the "Basic Assumptions" published at the beginning of the year as well as to the rich material prepared by the commission's individual, essential teams.

Without doubt it is a document of compromise, the kind which--as Prof J. Popkiewicz described it in the discussion--contains as many plans as necessary and as much market action as possible. This compromise results also from the course of discussion up to now. As long as far-reaching differentiations entered into the question of detailed and practical solutions. The editorial team decided that in the finished document one should:

--submit those solutions which concern the essential part of the national economy, while substantiating them in relation to the preliminary draft;

--emphasize the necessity of applying separate solutions in relation to the various sectors of socioeconomic activity;

--publish the detailed, critical analyses of the commission's teams.

As the authors of "Directions" stipulate in the face of the especially far-reaching divergence of positions concerning an enterprise's economic system, they have presented a proposition which is an attempt to bring the views into harmony in the full knowledge that this is the subject of sharp disagreement in the various circles of economists.

The document specifying the directions of economic reform comprises eight parts.

It encompasses the problems of the necessity and the goals of reform; the problems of the governmental-organizational structure and the basic principles of the functioning of the economy; the problems of planning; subsequently, matters of independence, of self-rule, and of the principles of an enterprise's activity; central control of the economy; the problems of the right to work and to welfare guarantees with the projected effects of the reforms on the public; and, finally, two very essential problems--a calendar for instituting the reforms, and the principles with which that is connected, of the functioning of the economy in the difficult interim period.

Detailed attachments are described: the functions of the central organs of the state administration, the banking system, an outline of the part of social agencies in the planning process, the content of socioeconomic plans with a different temporal horizon, and finally--precisely that controversial--economic system of enterprises, which is proposed in three different versions.

Already from this--necessarily shortened--presentation of the "Directions" one can see the differences in comparison to the original version. Also better--if one can use such a designation--is the language of this document, analyzed many times in advance. Surely it is worth being mindful of the perhaps three times as large record of the finished version. Popular, publicistic, for a broad audience, explaining the fundamental sense of the proposed changes and their effects; approximating the version put forward, and--for specialists--containing a whole batch of detailed documents.

Given the difficulties with paper perhaps it will not be easy, but--one can risk stating--there is not a more important matter than appropriately popularizing the reforms in the broadest social circles, bringing it close to the people, who after all must accept it and learn to live in the conditions which it will create. By the way, this would also be a distinctive test for the authors, for after all we have not seen--unfortunately--even a moderate level of popularization of the economic and organizational-systemic knowledge which today is so necessary for us all.

Some events for introducing the successive stages of the reforms will without doubt be an eventful affair of the highest rank.

The reforms will be achieved as a composite unity and possibly will be achieved quickly. However, this is a process, and not a single act. Four successive phases of institution are foreseen, mutually interrelated:

--the first, taking up the first half of the present year, a phase which in principle we already have behind us, concentrated effort on creating the fundamental, legal documents of the reforms;

--the second--the third quarter of the present year--will include, among others, work concretizing the detailed organizational and functional solutions, with legal activity dominating and creating the bases for the economy to function on the new principles;

--the third--the fourth quarter of the present year--will encompass the initiative work in enterprises. Foreseen here are, among others, realizing the analysis of the state of ownership, organization and system of management and the analysis of the ability for adapting as well as evaluating the perspective of the income or profit of enterprises operating on the new principles.

--the fourth--which will begin with the new year--will be a phase of researching and observing the functioning of the new tools for controlling the economy and working out the indispensable corrections. For this purpose, among others, the Plenipotentiary Bureau for the Administration of Economic Reform has been appointed for a period of 3 years; the bureau will coordinate all the work of the organs of the state administration with regard to the institution of the reforms.

The reforms will be in the initiation process during a particularly difficult period, one of profound economic crisis. Admittedly, therefore, after the introduction of the fundamental package a 2-3 year transitional period is needed, during which attaining the desired state of affairs will ensue.

In spite of many affirmations that the transitional period will present a threat to the reforms, it seems that it will nonetheless be impossible to avoid solutions of a still distributive-directive character which would not interfere with the logic of the new system, but which would help get the crisis under control. This concerns in particular: the turn in the means of production and consumption, the supply of which does not cover the demand; the preservation, given the necessity for subjective distribution--under a fixed production not to institutions--of certain organizational structures of the economy; and motivational solutions (the question here is one of the principles of the formation of supply funds as well as of the broad and difficult problem of reform in supply and retail goals).

The final part of "Directions" affirms that a necessary condition for the effectiveness of reform is an economic policy which will enable the functioning of the new solutions. But the realization of the reforms depends on the political will and the ability of the authorities to execute profound changes in the manner of the functioning of the economy, just as it depends on society's understanding the ideas of the reforms and its readiness to involve itself in their attainment. Here a special role falls to the party and its organizations.

A speaker in the discussion emphasized that the document "Directions for Economic Reform" is considerably better than the previous version. Delegates to the Ninth PZPR Congress will have at their disposal the synthesis which defines the directions of change in the economic system. In the opinion of Prof J. Pajestka, the commission and the legislative body now face the very difficult, ambitious test of translating into practical language a concept which in its intention goes farther than any attempts at reform undertaken in Poland up to this time. It goes beyond the Hungarian reform in solutions concerning the self-rule of personnel at enterprises. It goes farther than the reform initiated in Yugoslavia as far as the sphere of social guarantees is concerned.

The recommended conception of reforms in goals was stressed and the necessity for linking it with a retail system was shown. It was emphasized that the most advantageous departure would be a simultaneous reform of retail and supply goals. It seems, however, that for various reasons this is impossible.

With regard to the reform of the banking system (that same day the Sejm passed a bill about a new banking system), the concern is that this system be just supple, credible and plenipotentiary enough to be able to set a veto when the economic administration undertakes irrational decisions.

One of the matters most harmful to reform of the economy is the distrust with regard to the economic authorities, who in the understanding of many people are trying to leave as many loopholes as possible for the restoration of the directive system. In the opinion of several speakers, such distrust can be justified by what has been experienced up to now. Only the Ninth PZPR Congress's express political acceptance of the reform activities can change this stage of affairs.

By decision of the Political Bureau of the Central Committee of the PZPR and of the Congress Commission, "Directions of Economic Reform" will be incorporated as an integral, fundamental document into the Ninth PZPR Congress.

9541
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STATE FARMS CHANGE OVER TO NEW ECONOMIC-FINANCIAL SYSTEM

Government Press Conference

Warsaw TRIBUNA LUDU in Polish 23 Jun 81 pp 1,5

[Report by Ewa Fiala on government press conference held 22 June on the agricultural and food problem]

> [Text] The press conference of the government spokesman, hosted by editor Jozef Barecki, was held on 22 June and was entirely devoted to the agricultural and food problem and also rural issues. Information was presented by Prof Jan Zaleski, minister of food industry and purchases; Prof Zdzislaw Grochowski, undersecretary of state of the Agriculture Ministry; and the representative of the Ministry of Labor, Wages and Social Affairs, Marek Piatkowski, advisor to the minister.

As of 1 July [1981], the State Agricultural Farms [PGR], as the first economic organization in the country, are changing over to a new economic-financial system. It is based on the departure from the centralist, multilevel system of management. The Central Board is being abolished as of that date and the voivodship associations by the end of the year. The enterprises themselves will estabish the structure of production and will themselves finance investments from profits. They will be bound by the same prices as the other producers in procurement and purchases. They will benefit from the uniform system--in all of agriculture--of credits and will, like everyone else, be taxed.

The PGR--enterprises and combines--will establish their own associations. The council of the association will carry out service functions for the PGR.

Professor Grochowski made known that the calculations conducted indicate that the new system should relatively quickly (even during the current year) bring the PGR out of its deficit (the subsidies have amounted to an average of approximately 20 billion zlotys annually) and should bring an improvement in the structure of production and, in effect, more food. From this area there is only one hypothesis: A decrease in the head of grazing stock which will permit the acreage of grains in the sowing structure to be increased, and will create the possibility for increasing the production of pork in quantities that are 50 percent more in relation to currently produced beef.

Don't Bring Wood to the Forest

On 1 July, new price lists for plant products will be introduced. Let us remember that this second phase of the price increase (the first covered meat and milk) to the level of 950 zlotys per 100 kg of all four grains also considerably increases the procurement rates for industrial plants such as, for example, rape, tobacco, pea, and lupine.

Minister Zaleski pointed out these new profitable prices, hastily adding that the farmers may even get a higher price, due to introduced supplements. These are: for drying and storage of grains—that is, for deliveries in the fourth quarter--50 zlotys per 100 kg and then in the first quarter of the next year another 50 zlotys. This "winter" price will amount then to 1,050 zlotys. What is important, this price will be paid to farmers delivering grains from previous harvests (until 15 July of this year).

What is the reason behind these bonuses? It seems that the reason is very good. Not many grains are needed for bread, flour, and noodles, but they are needed on the farms as feed. Considering our energy situation, it is better to dry grains in chambers and by means of two-phase combine harvesting rather than store them in drying plants and elevators. It is cheaper to store the grains on the farm or in the village district than to transport it further. The profitability of such an arrangement is additionally enforced by the new price list for industrial feed to be introduced on 1 July. In other words, industrial feed will be expensive, much more expensive when compared with concentrates and supplements.

Pensions--Unacceptable Proposals

Of the two proposals regarding the pension law presented by Marek Piatkowski, the first one is an old law with a few modifications such as supplementary pay for more than three children, 8-week maternity benefits, pension for Group II disability, higher sick benefits, injury benefits, pensions for owners of highly efficient farms below 0.5 ha, voluntary pension plan for owners of 1-ha farms, etc.

The second proposal focuses on social goals only. It does not take into account the production goals of the structural changes in agriculture as well as other restrictions. Accordingly, it would give the right to pension to everybody working on a farm regardless of family relationships as well as allowing the retired person to decide what to do with his or her farm and entitle him or her to the full gamut of social benefits that other occupational groups have been accorded (for example, payments for sick leaves exceeding 3 days). The cost of this proposal was calculated; it reached an astronomical figure of 100 billion zlotys. The ministry suggested that if this proposal is accepted then the burden should be placed as it has been till now; one-third on the state, and two-thirds on the farmers.

Contrary to reports that we are ahead of time, because the deadline for submitting a proposal to the Sejm expires at the end of the year and consultations with constituent groups can start on 15 July, there is no time. Because frankly there are no proposals. It is necessary then to come up fast with proposals which can be really discussed.

The Market--Meat the Biggest Problem

As the statistical figures show, supplies reach the market as planned in most categories, and in some cases they exceed the envisaged amounts percentage-wise.

In 5 months, in accordance with the plan, the yearly supplies ought to reach 44 percent. The statistics show that the refrigeration industry supplied 58.8 percent, grain industry--55.5 percent, vegetable oil industry--49 percent, and the meat industry--52.7 percent. Problems have been observed in the beer, potato and sugar industries. The situation looks worse if a comparison is made with the amounts supplied to the market last year. In the first 5 months of the year, 87 percent of the meat and poultry and 87.3 percent of the sugar deliveries of last year reached the market. However, other products were in greater quantity than last year in the same period of time.

These are facts, for there are no reasons to believe that the situation is different. But if one keeps in mind very irregular deliveries, uneven distribution of different products, and that food worth 170 billion zlotys is met by 274 billion zlotys in the hands of consumers, the empty shelves in stores are not surprising. Only by increasing deliveries 2.5 times could the balance be restored. But such a thing is impossible.

The expectation of a good harvest--the state of the fields is encouraging--will not bring good results in cattle breeding immediately. We have to expect an even worse situation on the market particularly in regard to meat supply. The purchase in June of some 10,000 tons of meat, and most likely 14,000 tons (19,000 tons was planned) will not arrive on the market. Thus there will not be enough and the reserves will also be smaller, which will have a negative impact on the continuity of deliveries and coverage of deficiencies in supplies. The problems will not end when the month passes, they will have an impact on supplies in the third quarter.

As to other deficit articles the lack of which is particularly felt today, in the third quarter there will be 22.5 billion cigarettes, that is as much as last year, due to imports and introduction of tobacco cuts (this will compensate for some 0.5 billion cigarettes). However, the supplies of alcohol industry products will be considerably lower until the beginning of production and the new harvest.

The supply of the market with food products, stated the minister, depends largely on the processing industries, and immensely on the successes in agriculture, but not only on these two sectors, also on the domestic trade network. Such factors as that store employees do not work on free Saturdays, that Sunday duties in stores have been abandoned, and that sales from open-air stands have been discontinued not only reduce supply, they also create waste. That is what has already happened to the distribution of milk and what is beginning to affect the sales of fruit and vegetables. Farmers, procurement offices, and the processing industry work continuously, but the sales network operates only 5 days a week. Unless this situation is changed, even the best harvest and a river of milk will not resolve the problem.

Summary of New System

Warsaw TRYBUNA MAZOWIECKA in Polish 16 Jun 81 p 6

[Article by Adam Orlowski]

[Text] There is hardly anybody today who would like or who would be shocked by the state farms [PGR], where the production cost of 1 liter of milk is three times higher than its procurement cost. All, even the staunchest supporters of the state sector in agriculture, have finally understood that there can be no longer allowed a situation where the production costs of meat or grain in a generally well-equipped PGR are much higher than in a technically backward individual farm. That is why public opinion has welcomed with a sigh of relief the announcement that on 1 July 1981 a new economic-financial system will be introduced in the state sector of agriculture. The current ordering-distributive or--as some prefer to call it--directive system, will be replaced by a parametric system.

Let us recall that the ordering-distributive system was dominated by centralist tendencies complemented by numerous decisionmaking and directive-issuing centers (headquarters, branch associations, local administrative and party offices), and the bureaucratic style of management stifled organizational, technological and production, let alone economic, independence. This absolved the employees and the management from any responsibility for their work.

The removal of the decisionmaking powers from the production centers, extending of the information circle, limiting the independence of enterprise managers and lower-level employees, which led to indifferent attitude toward production results and at the same time to increased bureaucratization, higher costs and greater waste--these are results directly felt by the employees as a consequence of the ordering-distributive system in the PGR. Particularly disturbing was the fact that during the decades when this system was in place, the PGR almost totally abandoned the correct cost accounting and production analyses. When making decisions, no cost accounting was attempted, which led to tremendous increases in production costs and thus forced the state to give out high subsidies....

The new system as of 1 July will consist of giving total independence to the agricultural enterprises and influencing the production structure by a price system which will create the volume and the production and services structure expected by the public, [illegible] employees' earnings depending considerably on the economic effects achieved by the enterprise or its subsidiary, which will base their economies on full internal cost accounting and analysis. "In such an agricultural enterprise, the financial result will be considered the only goal," says Prof Ryszrd Manteuffel. "The idea is," he continues, "for the financial result (a criterion to evaluate the activity of an enterprise and a factor in determining additional earnings of the employees) to force the enterprises to operate efficiently and thus discourage them from producing waste and from producing at any cost."

Thus, both economically and socially it will be a cohesive system. It is hoped that the system will provide uniform procurement prices for our entire agriculture, equal for all of its sectors. It is hoped additionally that in addition to the prices fixed by the State Price Commission [PKC] for many agricultural goods there will be allowed market prices (called balance prices), shaped directly by the market. Naturally, as of 1 July 1981 the subsidies for production in general and for most specific products (except for special tasks, such as, for example, cultivation of the highest quality seeds or animals for breeding purposes) will be discontinued. Consequently, the enterprises will use funds obtained from their own accumulated profits or from their bank accounts (receiving interest and maintained indefinitely) for investments as well as everyday expenses. It is the banks which--as envisaged in the new system--ought to become the contracting party and controllers of the activities of the state agricultural enterprises. They will keep an eye on efficient management, and proper and effective use of each zloty. They will be able to exert influence on the direction and volume of production, which, of course, is not in conflict with the principle of independence, which is this way only organized on the economic and financial level; particularly that the new system will precisely define the decision limits for the headquarters and enterprises.

The decision areas will be clearly divided. The headquarters will be given, among others, the right to determine distribution and sale prices, to determine the conditions for credit approvals as well as the functioning principles of the tax system, financial system and the legal basis for the enterprises' activity, etc. The enterprise, in turn, will have total freedom in making both strategic and operative decisions, that is, from decisions regarding the internal organization of the enterprise and investment directions up to decisions as to what to sow on a given field and the basis for breeding farm animals. It is only in such conditions that PGR employees--who participate in management--will become the subject and not, as until now, the object of management of the state sector of agriculture.

Ills of Old System

Warsaw CHLOPSKA DROGA in Polish 24 Jun 81 pp 1,2

[Article by Andrzej Jaruzelski]

[Text] The state farms [PGR] and other socialized enterprises do not have a good reputation in our country. The few really good ones remain unnoticed in the mass of average and poor ones which instead of enriching us deplete our gross national products. Today when we begin to calculate carefully how much it costs to do anything the conclusion frequently arrived at is that the leading role of our socialized sector of agriculture is not as good as we would wish it to be. The criticisms of this sector, however, are not brought up by animosity, as some reporters seem to suggest. It is not emotions that bring them out, but cool calculations based on data, which only recently have become available on a greater scale to the public.

I would like to point out to both the supporters and enemies of this type of economy that in economics it is cost accounting that matters, not emotions. The fact that there were state estates--that was the name used then--in the prewar period escaped the public attention, because there was no reason for emotions. On the other hand, cost accounting has for years had no chance to compete with the officially approved mechanism of the functioning of the directivist plans which constituted the basis for the entire management system--in socialized agriculture as well--and is responsible for the fact that we have a certain type of state farms.

For life has its laws, and regardless whether they are accepted or not, we can now see their effects--often ludicrously distorted--in our economy. An agricultural enterprise due to its natural characteristics is a more complex production mechanism than an industrial enterprise. Therefore, when it was realized that good weather, well-being, rainfall, temperature patterns and many other factors could not be arranged, the decision was made that there were enough production factors independent of man to justify any failure and thus qualified for compensations from state subsidies. It is a pity that the planners and production schedulers did not come up with the idea of basing the functioning of state farms on cost-accounting technique, already proven by agricultural practice.

Instead, as every state farm mangers well knows, the road to success led not through more efficient production, but through various tricks. If in the economic system of enterprises everything was put on its head, we were able to witness such paradoxes as the one described in ZYCIE GOSPODARCZE when some PGR bought milk in retail stores in order to lower their production costs and more easily exceed their milk delivery quotas. Should we blame the PGR and the farm managers for that, for their ability to count and think economically? If the accounting system points to the fact that it pays better to buy than produce, why not do it? Only who is going to produce this milk? It reminds me of the government subsidies for U.S. farmers to refrain from sowing wheat. Since the federal government found it more profitable to pay the producers for reducing production than to store the grain surplus, it was decided to resolve the problem this way. Was our price system intended to discourage farmers from producing milk? If this was not the case, who is responsible for the fact that the price system had precisely this effect? Clearly not the PGR alone. I recall another example of a PGR which suddenly lost over 1,500 hogs (this example was also quoted by ZYCIE GOSPODARCZE). Is it possible that somebody had stolen them, or that they had suddenly died? Certainly not. These were paper hogs. The plan and bonus payment requirements for the employees called for figures documenting the increase in the number of animals. That nobody could see the real animals was of no interest to the authorities. Can we put the blame only on the PGR for taking the easy way out, if the fictitious manipulations with the sale and purchase of animals gave better economic effects and higher bonuses for the employees than the real animals?

There were many more of such absurd decisions forced upon the farms from above. In the PGR of Olsztyn Province, the employees involved in cattle breeding were given bonuses for saving feed. One can hardly be surprised that the animals were hungry and the productivity was low. And yet the employees benefited while the enterprise and the economy lost. There is an infinite number of such examples.

Would any farmer interested in the final result of his activity--that is pure production--act this way if his work were properly credited? No doubt, disregarded or falsely interpreted economic laws encouraged enterprising PGR managers to use these breakneck tricks. This kind of production management in the state farms could not lead to good results. Thus, justified criticism should be directed at a different address, for after all the PGR did not invent the economic-financial system which for years has made their activities ludicrous. It was the lack of controls and financing methods which were supposed to force--regardless of social costs--the society to believe in the superiority of the state sector, but which have brought irreparable harm not only to the economy but to the state sector's public image as well.

People were taught inefficiency, the effects of which were compensated by state subsidies, but the net result was that each of us paid for it individually. How can prejudices seem strange in a situation like that? The agricultural cooperatives, organized on a different basis, did not fare better.

If a cooperative or PGR had to rely on its own means and count every grosz--because the bank would have controlled the money and collected penalty payments instead of offering subsidies compensating inefficiency--the present situation could not have developed.

Our country is awaiting now the introduction of an economic reform. Agriculture, due to its mixed character and market connections, will be one of its first pillars. The new economic-financial system intended for the state farms is expected to remove the barriers to efficiently functioning state farms. We want to create conditions for employee motivation which will make it profitable for the farms to produce the needed food without resorting to any breakneck tricks.

Conference on Changes

Zielona Gora GAZETA LUBUSKA in Polish 15 Jun 81 p 11

[Interview with E. Pioro, M.A., member of the NSZZ SOLIDARNOSC Regional Board in Gorzow; date and place not given]

[Text] [Question] As PAP reported, the National Agricultural Section of the NSZZ Solidarity, comprised of all branches of socialized agriculture, discussed the activity of state farms [PGR] during its recent conference in Cracow. Can you inform our readers of the result of this conference? We addressed this question to Edward Pioro, M.A., chairman of the Enterprise Committee of the NSZZ Solidarity at the PGR Agricultural Enterprise in Lubniewice, deputy chairman of the Solidarity Regional PGR Commission, and Solidarity Regional Board member in Gorzow.

[Answer] The conference established three commissions: first, on labor contracts in PGR; second, on the economic and management system which will be introduced on 1 July; and third, on employee management, to which I was elected chairman. The conference gave me the authority to organize a conference of employee management in Gorzow Voivodship. This conference took place at the PGR Agricultural Enterprise in Lubniewice; it was attended by the representatives of eight Solidarity committees in other enterprises as well as representatives of the Gorzow PGR Association.

[Question] You were elected chairman of the employee management commission, which was the first of the three commissions established at the conference of the National Agricultural Section of the NSZZ Solidarity, and which completed the first stage of its work on the principles of operation of the state farms. Therefore, I will start by asking what was the outcome of your commission's conference in Lubniewsice?

[Answer] Our decisions concern three basic areas related to the establishment of employee management in state farms. First of all, we defined the economic premises for the establishment of employee management; second, we defined the operation principles of the employee councils in enterprises; and third, we established the qualifications that a candidate for a council member should meet and set election rules.

[Question] Are you sure that the principles of establishment and activity of employee management will work out in the enterprises? After all, individual PGRs operate in different economic and organizational conditions....

[Answer] Of course the principles we decided upon are not specific suggestions for regulations. They only define the basic fundamentals of employee management. Among them we included the thesis that all employees manage the enterprise. Therefore the fundamental principle is that the director directs and operates the enterprise, but his activities are subject to control by the employee council....

[Question] What then is in the commission's view of the authority of the employee council?

[Answer] The employee council or employee management (we have not expressed preference for the use of one of these terms) appoints and recalls the enterprise director and approves the deputies appointed by him....

[Question] But anybody can make a mistake and the employee council may choose the wrong person for the director, for example, a person who is professionally incompetent or who has poor moral and ethical reputation. Do you allow the representatives of the higher state administrative organs, e.g., voivodship administrator [wojewoda], to veto the choice of a director in any enterprise?

[Answer] Yes. However, we decisively reject any form of the nomination of directors from above by the state administration.

[Question] As I understand it, the employee council will decide who will head the enterprise. Who will decide on the directions and volume of production as well as many other economic and financial matters? Are they going to be within the director's authority?

[Answer] No. We have decided that the developmental and operational plans of the enterprise, including long-term and yearly investment and economic and financial plans, will be decided and approved by the employee council. In other words, employee management will define the tactical and strategic plans for the enterprise, leaving to the director and his deputies the work on the operational plan needed for the present day and the future on a monthly and yearly basis.

[Question] Thus, the director's office will have only executive functions, for the main economic and financial goals will be defined by the employee management?

[Answer] Of course.

[Question] So much for employee management. What did the commission decide in regard to the future model of a state farm?

[Answer] We are in the process of preparing such a model on the level of the Reginal Coordination Commission of the NSZZ Solidarity in Gorzow. However, the organizational and economic model cannot be the same for all PGR enterprises and combines because many of them operate in different technical and production conditions. There will be one uniform principle applied in regard to the flattening of the organizational and management structure from the four-tier (State Farms Association-agricultural combine-enterprise-farm) to the two-tier (combine or enterprise-farm). Most discussions in the commission and the State Farm Association [Zjednoczenie PPGR] center around the definition of the size of the economic and production area for the enterprise. Our position is that this should be decided by the employees and management of an individual PGR combine or enterprise.

[Question] So far you have talked about the views represented by the NSZZ Solidarity. However, many employees of state farms belong to the Trade Union of Agricultural Employees. Have you consulted with them on employee management and future model for the PGR?

[Answer] That is true, if the principles of employee management in state farms ought to be accepted by all employees, such as consultation is indeed needed. Unfortunately, we have not been able to have such a consultation at the State Farm Association and Gorzow Voivodship levels, although we wanted to do it. Simply, the specialized trade unions have not worked on these problems yet. However, at the Lubniewice Agricultural Combine we consulted not only with the Trade Union of Agricultural Employees, but also with the PZPR Enterprise Committee.

[Question] What is the result of these consultations at the Lubniewice Combine?

[Answer] In the next few days there will be a meeting of the Executive Board of the PZPR Enterprise Committee in which the Enterprise Committee of the NSZZ Solidarity and the Enterprise Trade Union Council will participate. There will be only one topic on the agenda: employee management and rules governing its establishment.

[Question] How soon can we expect visible effects of this cooperation in the combine?

[Answer] You probably have in mind the most visible effect in the form of establishment in the combine of the employee council, that is, or the management organ of the crew. Shortly we will establish the founding committee which will carry out elections to employee management.

[Question] Your activities, then, will be ahead of the Sejm which is scheduled to pass a bill on employee management in enterprises....

[Answer] Of course. But social practice has often in the past preceded the state lawmaking process and most times this had a beneficial effect on the proper formation of the legal system. I wish to point out, however, that our employee management will act in accordance with the enterprise regulations only until the bill on the employee management is passed.

[Question] Perhaps to end our conversation you would like to share with our readers the NSZZ Solidarity view on perspectives for the development of state farms.

[Answer] I can only give you personal hypotheses which may differ from the view represented by Solidarity as a union. I believe that in Gorzow Voivodship the existence and further growth of state farms is a necessity due to specific economic and demographic conditions in the village.

[Question] And what is your view on the development of this form of socialized agriculture on a national scale?

[Answer] The possibilities for the further growth of state farms on a national scale depend in my opinion on the functioning principles of the state farms. The idea is for each enterprise functioning independently to offer agricultural products at the lowest cost and at the same time to be profitable. I am an optimist and believe that in the nottoo distant future each PGR encerprise will bring profit instead of the present losses. On the other hand, not all the enterprises have been and are bad. The negative view on the PGR expressed by the public is a result of generalizing singular instances of inefficiency and applying them to all enterprises. This is a result of insufficient information about the PGR and food economy as a whole in our media.

8609
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ROMANIA

INVESTMENT SHORTCOMINGS ANALYZED, IMPROVEMENTS SUGGESTED

Bucharest REVISTA ECONOMICA in Romanian No 25, 19 Jun 81 pp 4-5

[Article by Alexandru Tache of the Investment Bank: "Priority on Capacities To Be Activated in 1981"]

[Text] Complete and punctual activation of the investment capacities planned for this year is an essential requirement for shortening the periods of immobilization of major material and financial resources and for enhancing their effectiveness. As the party documents have pointed any number of times, punctual completion and activation of the new industrial and agrozootechnical production capacities planned for 1981 are to be the main objective for all elements involved in investment projects, from the builder to the beneficiary.

Concentration of Forces on Main Objectives

The special emphasis in this year's investment plan upon completion of the capacities under construction from previous years so that they could be put in economically effective operation as soon as possible made it feasible to introduce over 100 capacities into the economic cycle either partially or entirely in the first 5 months of the year. These results were due to several factors, including:

- Concentration of production upon a limited number of worksites, chiefly at the capacities in an advanced stage of construction, which made it possible to complete some productive capacities 1-7 months ahead of schedule (the industrial boilers section at the Bucharest Vulcan Enterprise, the forged parts capacity at the Muscel Machine Enterprise, the processed plastics section at the Dragasani Plastics Enterprise, etc.). For example, activation of the processed plastics section 7 months early has already permitted an additional output of more than 1,000 tons above the plan for this year.

- Better collaboration between builder and beneficiary to secure continuity of construction-installation operations. When the beneficiaries helped the builder effectively by contributing their own forces to install the equipment at the worksite (as in the case of the capacity for aluminum-steel wires for overhead power transmission lines in the Bistrita CICM [Industrial Combine for Machine Building] or the capacity for hoisting and transport equipment at the Toplet Machine Enterprise), there were no problems in meeting the planned activation deadlines and efficiency was high throughout construction (as in the case of the new production capacities at the Aiud Metallurgical Enterprise, the Cluj-Napoca CUG [Central for Heavy Equipment], the Nicolina-Iasi Machine Enterprise, etc.).

- Improved technical-material supply, especially with light and cheap prefabricates and construction materials which, in addition to the major savings in specific consumption and production costs, expedited construction and obviated bottlenecks and interruptions at the construction sites (the capacity for housing prefabricates at the Doicesti IMC [Construction Materials Enterprise], the capacity at the Toplet Machine Enterprise, etc.).

Of course other factors also contributed to completion of the said capacities on time or ahead of time, but the significant fact is that when thorough preparations are made for the investment project in advance (documentation, orders, release of lands, start of financing, contracting for equipment, organization of worksites, recruitment of the needed labor force, etc.), the construction-installation operations properly speaking proceed efficiently and promptly and the delivery dates of the capacities are generally much earlier. Unfortunately this is not true everywhere. The analysis that was made showed that over 80 production capacities were activated late in the first 5 months of 1981. What were the reasons for this?

What Is Holding Up the Operations?

In general the arrears recorded in the first 5 months of 1981 were due to defective organization of operations at worksites, lax control of conformity of construction to the planned schedules, the builder's unwarranted delays in making preparations for installations and procuring equipment in the order necessary for installation, etc. Analyzed on the level of the economic units, these defects mainly took the following forms:

- Late delivery of construction plans to some investment capacities. Although the construction plans for the volume of construction-installation specified in the 1981 plan should have been delivered to the builders 6 months before the start of the year, most of the ministries and people's councils did not entirely supply them. As of 1 May 1981 the percentage of their nondelivery by beneficiaries was 27.1 percent at the MICM [Ministry of the Machine Building Industry], 23.2 percent at the MEFMC [Ministry of the Forestry Economy and Construction Materials], 30.1 percent at the Covasna County People's Council, etc. In view of the great importance of preparing for the operations, the elements concerned most take the most urgent measures to draft and approve the orders for all production capacities to be delivered in 1981, while making the necessary preparations to substantiate the plan for next year now.

- Arrears in delivery of technological equipment. The planned construction periods are also exceeded because of bottlenecks at some worksites due to failure to procure the necessary equipment in time according to the specifications. For example, at the beginning of May 1981 the equipment suppliers in the machine building industry were behind the provisions by 26.7 percent of the quantities of technological equipment for the capacities to be activated this year, including that for investment projects in their own sector (the Buzau Technological Equipment Enterprise, the Zalau Enterprise for Industrial Fittings of Cast Iron and Steel, the Craiova Heavy Equipment Enterprise, the Satu Mare Unio Enterprise, etc.). Worksites sometimes lack the equipment because some beneficiaries are in the habit of accepting delivery dates that do not always correspond to the activation dates of the production capacities or are even after the activation dates. And as a reverse reaction, some beneficiaries sometimes accept or even request delivery dates months before the start of installation, preventing the equipment suppliers from filling orders for capacities with closer activation dates in addition to improperly immobilizing funds and increasing the investment costs (because of the extra outlays for storing the equipment at worksites).

- Slow performance of construction-installation operations. Although the plan provides concentration of forces upon a limited number of worksites to reduce their dispersion, there are still lags and slowdowns in the construction operations, especially at some investment capacities under the MEE [Ministry of Electric Power], the MEFMC, the MTTc [Ministry of Transportation and Telecommunications] etc. Compared with the planned volume of construction-installation operations, the actual results in the first 5 months of 1981 amount to only 26 percent at the Calafat Biosynthesis Enterprise, 35.5 percent at the North Tirgu Jiu 220 kilovolt Station, 62.5 percent at the Bistra-Poiana Marului Hydroelectric Power Station, etc.

Late arrangements for installation on the part of the builders have made it possible to form large stockpiles of uninstalled equipment at worksites, much of it parked too long (the proportion of this equipment is up 13.3 percent from the beginning of the year), especially at some investment capacities under the MEE, MIU [Ministry of Light Industry], MIM [Ministry of the Metallurgical Industry], MICM etc., to say nothing of immobilizations of equipment because of its delivery by suppliers in disregard of the installation order.

Complete Exploitation of Internal Reserves

The construction organizations' results this year indicate that there are still some major reserves for qualitative growth and improvement of the production process at the construction sites and for efficient exploitation of the entire material and manpower potential. This calls for greater efforts on the part of all elements involved in the investment process to bring the investment projects into the economic cycle as soon as possible and to concentrate activity chiefly upon the following objectives:

- Greater flexibility on the part of the builder in concentrating material and manpower resources on the important capacities with every possibility of punctual activation, and on the earliest possible completion of the operations upon which installation of the stockpiled equipment depends;

- Expanded mechanization of construction operations and more complete use of the inventories. For this purpose the construction organizations must make a greater effort to expand mechanized operations both horizontally, in the case of complex operations in large proportion (preparing and pouring concrete, excavating and moving earth, etc.), and vertically, down to the level of auxiliary operations (painting and plastering, loading and unloading construction materials and assemblies, etc.). This would considerably enhance labor productivity, shorten the construction periods, and improve the quality of construction operations. It is also necessary to make better use of the machines and mechanized equipment by increasing the workloads and using them fully throughout the whole working day. The present situations at many construction sites, especially those belonging to the MCInd [Ministry of Industrial Construction], MIM, MTTc, MAIA [Ministry of Agriculture and the Food Industry], MEE etc., indicate incomplete use of the whole inventory. The indices of use of working time do not exceed 50 percent (excavators, 45-46 percent; bulldozers, 48-50 percent; loaders, 44-45 percent; automotive and traveling cranes, 45-46 percent). If, for example, the index of use of the mechanized equipment were increased by only 2 percent, daily savings of about 1-3 hours could be made on the level of the construction organizations.

- Recruitment and training of the needed labor force in advance. It is well known that recruitment of the labor force in keeping with the plan provisions as well as its training in various forms are priority objectives that can contribute much to the solution of some of the many problems of meeting the planned construction deadlines for the investment capacities scheduled for this year, especially since previous experience tells us that 10-15 percent of the arrears are due to manpower shortages at construction sites, especially of skilled labor. For example, the delays in activation of some investment capacities (Zalau Factory for Reinforced Concrete Prefabricates, Lupeni Artificial Threads Enterprise, Valea Calugareasca Sulfate Installation 3 etc.) are largely due to partial or total lack of tradesmen (bricklayers, fitters, welders, electricians, crane and excavator operators, etc.) in some construction trusts such as the Cluj, Craiova, Bacau, Ploiesti and other TCInd's /Industrial Construction Trusts/. Their timely recruitment would permit elimination of production slowdowns, continuity and regularity of construction at various worksites, and coverage of operational peaks, with a corresponding gain in output quality. Therefore it is urgent to expand the existing qualification courses and especially the multiple qualification programs to meet the current and long-range requirements of construction work.

- Priority delivery to worksites by the producer units of overdue equipment and of equipment essential to activation of capacities in advanced stages of construction or to installation of already acquired equipment. This also requires stricter observance of contractual discipline by the equipment suppliers by way of delivery of equipment of the right quality to worksites in keeping with the technological requirements for installation.

- Prompt inspection and acceptance of completed operations by the investment beneficiaries, in order to make all preparations in advance that are necessary to start and perform the technological tests. It is also necessary to make the inspections more exacting, to guarantee attainment of the planned parameters within the approved time limits when the new investment capacities are activated.

Exploitation of all these reserves will provide the material conditions essential to strict observance of the construction schedules, rational management and use of the technical-material base, improvement of the quality of construction-installation operations, and consequently complete fulfillment of the provisions of the investment plan by the end of the year.

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CSO: 2700/311

AREAS OF RESPONSIBILITY IN FOOD SELF-SUPPLY PLAN

Bucharest REVISTA ECONOMICA in Romanian No 25, 19 Jun 81 pp 14-15

/Article by Dr D. Patriche: "Extensive Mobilization for Self-Supply Effort"/

/Text/ When the 1981 plan was discussed the Plenum of the RCP Central Committee of October 1980 assigned major responsibilities for supply of the public with goods and services in all areas of Romania, along with the decision to obtain an above-plan output of consumer goods amounting to about 10 billion lei. In order to obtain such products as meat, milk, vegetables, eggs etc., the county organs were accordingly assigned greater responsibility both for plan fulfillment and supply of the central reserve and for supply of their own consumption. Meanwhile it is intended to provide appropriate legislation that will lead to better supply of the public by regional promotion of the principles of workers self-management and economic-financial self-administration. According to the Law on Formation, Distribution and Use in Counties of Resources for Public Supply of Meat, Milk and Vegetables as well as the Decree on Organization of Services for Industrial Processing of Products of Agricultural Producers, increasing the county organs' responsibility for supplying the central reserve with products, the counties are encouraged by the broad powers granted in direction and implementation of the plan tasks and in regard to use of above-plan output by the enterprises within each county's jurisdiction. For instance the counties will benefit, beyond what is determined by the consumption norms, by a certain quota of products from each state or cooperative enterprise if the production plan is exceeded. Moreover the counties will receive 60 percent of the output of meat and milk and a much higher quota of the vegetables and eggs out of the additional purchases from the public made by the purchasing units in the area. In certain situations under the new laws, a number of economic units producing various food products in their own annexes will keep the entire quantities produced according to the plan or above the provisions of the plan tasks.

In pointing out the emphasis placed by the party administration upon the self-supply program for the further improvement of the public's consumption, Party Secretary General Nicolae Ceausescu said, "We are granting... the people's councils broader functions and greater responsibilities and giving them the opportunity to obtain additional consumption by producing additional outputs when the planned numbers of livestock are attained. But I want it understood that this additional consumption entirely depends upon additional outputs."* In pursuance of these directions and on the basis of consistent application of the 1981 program for both agriculture and industry to increase

*Nicolae Ceausescu, "Speech at the Plenum of the RCP Central Committee of October 1980," Political Publishing House, Bucharest 1980, p 30.

the volume of consumer goods for the public, the local territorial organs must take definite measures to encourage the masses of workers to fully contribute to adequate exploitation of their local resources to better satisfy the public demand for consumer goods, both within the economic units to which they belong and through their private farms.

Role of Trade Organs and Enterprises

In starting to apply the party administration's measures to further improve the public supply of goods and to increase the contribution of every area and every sector to that end, all trade activity is characterized by a highly intensive and continuing development of the efforts to play a responsible part in the organization and implementation of the vast series of measures for self-supply.

Accordingly the trade organs and enterprises must make their activity conform to the standards of the future by a strict program based on the decisions of the plenums of October and December 1980 and emphasizing their own contribution to the great reserve of goods made available to the public as well as further improvement of the system of contacts between the suppliers and the stores, improvement of the ways of organizing and operating the trade units, expansion of modern forms of trade, study of regional market demands, and specialized aid to the various economic units, private artisans and other categories of the public contributing to the efficiency of the self-supply programs.

Romania's trade systems have many opportunities to increase and diversify the stock in trade available to the public in every area of the nation and to better satisfy the consumer demand. In view of the important role the public catering sector has to play in the correct orientation of food consumption and in increasing trade's contribution to the greater volume of products offered the public in every community, we think two main courses of action could be taken to that end.

One of the first objectives would be to develop and diversify culinary production. By firm action in that direction in connection with their efforts to help improve the public's consumption by providing a varied and rational diet, both the state and cooperative trade organs should begin more resolutely to develop, diversify and improve the culinary products. As part of the effort to determine the preliminary assortments to be manufactured and sold according to types of units on the level of each county, the local trade organs must supply the respective assortments for each unit according to its location, type and category as well as the environment wherein it operates, and most important, the stock in trade should be constantly enriched out of the units' own resources from the annexed farms. Moreover this measure must be accompanied by measures to provide an adequate technical base. We refer primarily to organization of centers /carmangerii centrale/ and pastry laboratories specializing in manufacture of traditional local products and exerting a good influence by introducing and promoting sales of products important to rational consumption suited to the new conditions imposed by modern life.

A second objective is to further improve the public's access to the services offered by the units of the public catering sector. It is a matter of more emphasis on zoning, adapting and reorienting the network for the closest approach to the masses of consumers, increasing, diversifying and facilitating the public's purchases of culinary products, constantly improving service to the public, and providing supplementary services in growing public demand.

Role of Canteen Restaurants

Among the special efforts made both to improve the public's access to the services offered by the public catering sector and to increase trade's direct contribution to the supply of products placed in commercial circulation, more emphasis is to be placed henceforth on improved performance of the canteen restaurants.

In view of the important tasks assigned to trade according to the series of measures enacted by the plenums of the RCP Central Committee of October and December 1980 concerning both the further improvement of economic-financial management and planning and self-supply in connection with further expansion of workers participation in decision-making on all levels of social and state activity, the canteen restaurants can and must become an important means of enhancing the contribution of self-supply to the greater reserves of goods made available to the public on a regional basis.

According to the laws in force, the canteen restaurants are under the people's councils, who coordinate their operations through their specialized trade organs. Meanwhile the efficient operation of the canteen restaurants is secured by committees composed of representatives of the workers holding tickets, of the trade union organs, of the youth and women's organizations, and of the managements of the enterprises whose personnel eat at a canteen. These committees have broad functions in management of the unit. The continuing adjustment of the economic-financial mechanism to the new demands made by the intensive growth of the productive forces, for purposes of coordinating the democratic organizational structure with the economic-financial mechanism in such a way that the planning and management methods will ensure an active presence of all collective organs and of the masses of workers, provides a suitable background, through the intermediary of these canteen restaurants, for enlisting local forces in the self-supply programs.

In connection with the new efforts to improve the public's supply of goods and to enhance the local organs' contribution by organizing regular self-supply programs, the canteen restaurants are to be regarded as powerful socioeconomic units with a general production and sales function. In view of the way the canteen restaurants are operated and managed and the important part played by the trade union committees, enterprise managements and socialist organizations in guiding and supporting their activity, the local trade organs and especially the enterprises that coordinate the canteen restaurants' activity must begin, on the basis of joint programs, to considerably expand the internal production base that must be obtained on the annexed farms of these units. Previous experience tells us that this is quite feasible if well-considered economic measures are applied such as inventorying, with the aid of the local people's councils and the enterprises under which the canteen restaurants operate, the lands on the premises of the socioeconomic units as well as other lands that can be assigned for cultivation; installation and operation of truck gardens and orchards (apple, pear, peach and quince trees, sweet and sour cherry trees, etc.); arrangement of facilities for breeding and fattening livestock on the annexed farms, improved and equipped for reproduction; diversification of the production base of the annexed farms by installing small centers for semi-industrial processing of vegetable products or fruits from their own gardens and orchards, producing the quantities needed for current consumption of pickles, preserves, jams and sweets or for vegetable canning for the winter; installation of pastry kitchens; organization of centers /carmangerii/ that will produce all possible meat preparations by processing the meat and by-products resulting from slaughter of the livestock on stock farms; organization of other small production sections on these annexed farms like mushroom beds, fish ponds or basins, etc.

Of course the main purposes of all these improvements will be good organization of the canteen restaurants and diversifying and lowering the cost of the menus offered the ticket holders. But at the same time the surplus products produced in the various sections of the annexed farms (truck gardens, orchards, facilities for breeding and fattening livestock, centers [carmangerii], small centers for semi-industrial processing, mushroom bed, etc.) can be sold via buffets, kiosks or mobile units that the canteen restaurants are authorized by law to organize, thus helping both to improve the supply of the workers in the respective area and to enhance the effectiveness of the respective units. Note that according to law the canteen restaurants are exempt from the tax on circulation of goods, nor do they pay any profits into the budget that are made from their operation as restaurants or from the activity of the units belonging to them. All these profits are used to improve and lower the costs of the set menus and to develop the technical-material base available to the canteen restaurants.

Another great advantage of the system of organizing and operating the canteen restaurants and one of which the trade organs are to make full use is the fact that the trade union organs and the youth and women's organizations on the management committees of these units can enlist many workers in the enterprises under which these units operate for direct aid in cultivating or exploiting the truck gardens, orchards, stock farms or other small sections of the annexed farms. But it goes without saying that from that standpoint self-supply activity cannot be limited to its administrative aspects in the bureaucratic sense. In this case it requires a combination of economic-financial work with an intensive political effort among the men to make them realize that the proper supply and diversification of the menus depend on their work, as well as the growth and diversity of the assortments of products they can buy from the buffets on the premises, the kiosks or the mobile units organized by the canteen restaurants.

Organization of Production on Private Farms

In view of the growing importance of the various programs to provide locally for most of the food products for the public supply, the trade organs must further emphasize the system of relations with some categories of the public who offer to contract with the trade enterprises for various quantities of vegetables, fruits or other food products. In that case it is necessary to form, on the level of the people's concils, mixed teams composed of specialists of the various organs involved in the self-supply program to obtain specialized aid on the many levels on which it becomes necessary. In addition to the agrotechnical, zootechnical and plant-inspection aid provided by the specialized organs, trade also has particular tasks in the way of checking the progress of the production contracted for and prompt reception of the quantities falling due in order to minimize the decay or deterioration of the products. This is done so that the public can be regularly offered fresh and inexpensive products of good quality with no losses at the expense of the producers, which could affect their good intentions and enthusiasm and cause some of them to refuse to contribute to the self-supply programs any further in the future. The trade organs might also consider an efficient system of direct reception through retail units to be supplied by these categories of producers, with strict observance of the high standards essential to reception systems.

Regular development of Romania's cities and communes as basic territorial-administrative units of Romanian society and as effective economic centers capable of providing their inhabitants with optimal working and living conditions requires their intensive participation in prompt solution of the socioeconomic problems that confront them in such a way that the territorial-administrative units themselves, whether communes, cities or counties, can gradually progress to self-management and to economic-financial self-administration.

5186
CSO: 2700/311

LARGER SUPPLIES OF VEGETABLES, FRUITS PROMISED

Bucharest ROMANIA LIBERA in Romanian 16 Jun 81 pp 1, 5

[Interview with Corneliu Nicolau, director of the Commercial Directorate in the General Economic Directorate of Horticulture in the Ministry of Agriculture and the Food Industry, by Mircea Scripca, place and date unknown: "Vegetables and Fruits in the Balance of Supplying the People"]

[Text] [Question] It is a well-known role played by vegetables and fruits in the food supply because of their nutritional and therapeutic value. Thus, it is now important to know what measures have been taken to ensure a good supply of vegetables and fruits to the people and how we are working to implement these measures. In order to inform our readers about these concerns, we addressed comrade Corneliu Nicolau, director of the Commercial Directorate in the General Economic Directorate of Horticulture in the Ministry of Agriculture and the Food Industry.

[Answer] Keeping in mind the increased tasks in this field, the General Economic Directorate of Horticulture took a series of timely specific measures designed to lead to supplying the people with vegetables and fruits under proper conditions.

Compared to last year, we have ensured an increase in the surface area where vegetables are grown in greenhouses and other shelters by 700 hectares. On this surface area, in addition to the basic crops we have grown associated and related vegetables, thus intensely using all this protected area. Those areas slated for field crops were concentrated along broader peripheries within the state and cooperatist associations, primarily organizing specialized farms with one or two basic crops. In this manner, we can ensure a higher degree of mechanization, use of chemicals and irrigation, applying modern production technologies.

Similarly, it is important to point out that each county must produce its own necessary amount of vegetables for its own consumption, with changes in this being strictly limited to only those varieties that cannot be developed in each region.

Since this year the vegetable crop was delayed approximately 15 to 20 days because of unfavorable weather conditions, we will work, as directed by comrade Nicolae Ceausescu, the secretary general of the party, at the Working Conference of the Romanian Communist Party's Central Committee on 4 June of this year, to intensify all work in the field of vegetables and to recoup the shortfalls brought about by weather conditions by planting successive crops. As a result of the conditions created, we feel that we will be able to make increased quantities of vegetables and fruits available to the people.

[Question] In this regard, what details can you give us?

[Answer] According to the programs that have been completed, this year we are forecasting to make available to the people over 1,600,000 tons of vegetables or 850,000 tons more than last year. By type, compared to 1980, this year we will deliver over 230 percent more tomatoes, 150 percent more cucumbers, over 230 percent more eggplants and for green peas and green beans the increases are much greater. For early and summer potatoes, compared to last year the increase is 230 percent, while for fruits approximately 10 times greater for cherries and sour cherries, two and one-half times greater for strawberries and so forth.

In order to achieve these provisions, the appropriate county organs have the duty of being closely involved in completely fulfilling the tasks established in the programs that have been completed so that the harvest and transport of the crops will be done effectively.

[Question] What quantities of crops have been delivered to date to the markets and stores?

[Answer] In the first part of this year, the sales units of the county horticultural trusts were supplied with over 7,400 tons of tomatoes, 10,000 tons of cucumbers and 6,500 tons of lettuce, as well as the first amounts of field crops representing over 6,000 tons of green onions, 5,500 tons of spinach, 4,500 tons of lettuce and so forth.

Along with the warmer weather- we have begun to deliver to the markets early potatoes. early cabbage, cauliflower and so forth. In the previous week alone, we delivered a total of approximately 3,000 tons of early potatoes, 1,500 tons of green peas, 4,000 tons of early cabbage, 200 tons of cauliflower, 400 tons of root crops, 1,000 tons of green onions, 550 tons of lettuce, 200 tons of early radishes and so forth. Similarly, 1,500 tons of strawberries and 600 tons of cherries were made available for sale.

I want to also stress that even now we are concerned about the fall and winter supply situation in order to avoid certain shortcomings that occurred during the previous cold weather. Thus, compared with the achievements for the corresponding period in 1980, the fourth quarter of this year is slated to have available for sale over 280 percent more potatoes, 60 percent more dried onions, approximately 240 percent more root crops, 5 times more bean seeds, over 200 percent more apples, 170 percent more grapes, 6 times as many pears and 3 times as many prunes. Concomitantly, in order to supply the people during the first half of 1982, we are planning to store over 130 percent more potatoes, 130 percent more vegetables and over 140 percent more fruits compared to the first half of this year.

[Question] Also important for the consumer are the assured conditions for selling early vegetables. What can you tell us about this?

[Answer] In order to satisfy the consumers' demands under better conditions, we have paid special attention to the commercial network, which, today, involves over 4,400 units having a surface area of approximately 300,000 square meters. During the previous five year plan, we opened 315 stores, including 71 in 1980. Concomitantly with the more intensive use of the existing units, this year we will open 75 new stores, including 9 in Bucharest, 5 in Timis County and Botosani County, 3 in Cluj County and so forth.

Noting the concern for having self-service stores in Bucharest and in counties such as Bacau, Cluj, Constanta, Galati, Iasi, Sibiu and so forth, we feek that it is necessary for this concern to also be expressed in other counties, recognizing the advantages of the self-service system for buyers.

[Question] And, for storing potatoes, vegetables and fruits under good conditions, what is being done?

[Answer] Currently, there are 64 storage sites with a 350,000 ton capacity in our network. We are speaking of modern storage areas, including some universal storage areas with a capacity between 2,500 and 12,500 tons, while others for potatoes have capacities of between 2,000 and 20,000 tons. During the new five year plan, we will continue to expand the storage network in counties such as Arad, Arges, Giurgiu, Ialomita and others.

The General Economic Directorate of Horticulture will coordinate and pursue closely the manner in which the county horticultural trusts, together with all the units of the trusts, are involved in achieving their important tasks regarding both production and the use of vegetables and fruits for the purpose of ensuring supplies to the people under good conditions.

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